

Agenda

Environmental Stewardship and Action Community Advisory Committee

10th Meeting of the Environmental Stewardship and Action Community Advisory Committee

October 4, 2023, 3:00 PM

Committee Room #5

The City of London is situated on the traditional lands of the Anishinaabek (AUh-nish-in-ah-bek), Haudenosaunee (Ho-den-no-show-nee), Lūnaapéewak (Len-ah-pay-wuk) and Attawandaron (Add-a-won-da-run).

We honour and respect the history, languages and culture of the diverse Indigenous people who call this territory home. The City of London is currently home to many First Nations, Métis and Inuit today.

As representatives of the people of the City of London, we are grateful to have the opportunity to work and live in this territory.

The City of London is committed to making every effort to provide alternate formats and communication supports for meetings upon request. To make a request specific to this meeting, please contact advisorycommittee@london.ca.

Pages

1. **Call to Order**
 - 1.1 Disclosures of Pecuniary Interest
2. **Scheduled Items**
3. **Consent**
 - 3.1 9th Report of the Environmental Stewardship and Action Community Advisory Committee 3
 - 3.2 Green Bin and Collection Program Changes
 - a. Staff Report 5
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4. **Sub-Committees and Working Groups**
5. **Items for Discussion**
 - 5.1 REQUEST FOR DELEGATION STATUS - A. Johnson - Diesel and Vegetation 54
 - 5.2 Notice of Application - 764, 772, 774 Crumlin Sideroad 67
 - 5.3 Public Education - Yard and Lot Maintenance By-law
 - 5.4 Bird Friendly Brochure - Preventing Window Collisions 72
 - 5.5 Fishing Line Receptacles 74
 - 5.6 ESACAC Survey Results Discussion 75
6. **Confidential**

6.1 Personal Matter / Identifiable Individual

A personal matter pertaining to identifiable individuals, including municipal employees, with respect to the 2024 Mayor's New Year's Honour List.

7. Adjournment

Environmental Stewardship and Action Community Advisory Committee

Report

9th Meeting of the Environmental Stewardship and Action Community Advisory Committee
August 2, 2023

Attendance B. Samuels (Chair), B. Amendola, R. Duvernoy, A. Ford, M. Griffith, A. Hames, M. Hodge, A. Pert, L. Vuong, A. Whittingham, and K. Mason (Acting Committee Clerk)

ABSENT: I. El Ghamrawy, C. Hunsberger, C. Mettler, N. Serour

ALSO PRESENT: M. Fabro, J. Stanford

The meeting was called to order at 3:17 PM, it being noted that B. Amendola, A. Ford, M. Griffith, M. Hodge, A. Pert, L. Vuong and A. Whittingham were in remote attendance.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

None.

3. Consent

3.1 8th Report of the Environmental Stewardship and Action Community Advisory Committee

That it BE NOTED that the 8th Report of the Environmental Stewardship and Action Community Advisory Committee, from its meeting held on July 5, 2023, was received.

3.2 Comments Provided to the Federal Government on Recycled Content, Labelling Ruses and Registry for Plastic Products

That it BE NOTED that the staff report dated July 18, 2023 entitled "Comments Provided to Federal Government on Recycled Content, Labelling Rules, and Registry for Plastic Products", was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

5.1 2024 Mayor's Honour List - Call for Nominations

That it BE NOTED that the Environmental Stewardship and Action Community Advisory Committee asked its members to provide Nominations for the 2024 Mayor's New Year's Honour List at a future meeting for consideration.

5.2 Fireworks By-law Review

That the following actions be taken with respect to fireworks:

a) the Municipal Council BE ADVISED that the Environmental Stewardship and Action Community Advisory Committee (ESACAC) recommends the City of London adopt Option B as outlined in the staff report presented to the Community and Protective Services Committee; it being noted that Option B would allow for permitted display fireworks only to be discharged on specific days in London; it being further noted that this option would restrict use of all consumer (backyard) fireworks, restrict the sale of consumer fireworks in London, and propose an increase to current fines; and,

b) the Municipal Council BE ADVISED that the Environmental Stewardship and Action Community Advisory Committee recommends that the City considers the locations of permitted display fireworks to account for nearby environmental disturbance and to limit pollution from entering sensitive features such as the Thames River, and that the City aim to promote lower-impact alternatives to fireworks for at least some subsidized public events, such as outdoor concerts and light shows using drones.

it being noted that the submission on the fireworks by-law review, prepared by ESACAC, was received.

5.3 Climate Emergency Action Plan Working Group

That a Working Group consisting of R. Duvernoy, A. Hames, M. Hodge, A. Pert, B. Samuels and A. Whittingham BE ESTABLISHED to review the Climate Emergency Action Plan.

5.4 Resignation of D. Allick

That it BE NOTED that the resignation of D. Allick was received with regret.

6. Adjournment

The meeting adjourned at 3:43 PM.

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure

Subject: Green Bin and Collection Program Changes

Date: August 15, 2023

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to Green Bin implementation and changes to waste collection services and schedules:

- a. Civic Administration **BE DIRECTED** to implement a weekly (except for Statutory Holidays) pickup system for Green Bin and Blue Box and a 26 week per year pickup system for garbage collection starting January 15, 2024, that includes a special provision to address the longer garbage collection cycle that occurs because of Statutory Holidays;
- b. Civic Administration **BE DIRECTED** to establish an interim Waste Reduction & Conservation Calendar from October 1, 2023 to January 15, 2024 and distribute the Calendar using a combination of on-line tools and hard copies available at City facilities and other locations and not delivered door-to-door as is normally done;
- c. The Garbage Container Limit at the curb remain at three (3) containers or bags **BE APPROVED**, it being noted that the number of garbage pickup days has been reduced from 42 to 26 pickups;
- d. The Garbage Tag fee for use at the curb for extra bags or containers of garbage or for Bagged Residential Garbage brought to the EnviroDepots be increased from \$1.50 to \$2.00 as part of the upcoming Fees and Charges By-law review as part of the multi-year budget development **BE APPROVED**;
- e. Civic Administration **BE DIRECTED** to implement a separate large furniture and large bulky items collection program (limit of four items per pickup) that requires booking the pickup service in advance with collection occurring on a regular collection day starting October 1, 2023 and includes a 3 month grace period; and
- f. Civic Administration **BE DIRECTED** to establish a monitoring system to determine the level of household satisfaction with the Green Bin and collection program changes and report back to Civic Works Committee in late 2024 including specific details on managing pet waste and diapers and incontinence products.

Executive Summary

Part A – Overview of Green Bin Delivery Schedule and Program Start Date

Green Bin Delivery Schedule

The City's Green Bin container and kitchen container contractor, IPL, will be responsible for distributing the products to approximately 121,000 households in London. The kitchen container will be placed inside the Green Bin along with an information package. The distribution will take about 2 months to complete.

Green Bin Program Start Date

The City's new Green Bin split packers have begun to arrive in London, and several are going through final inspection and review. A review of the packer build and delivery

schedule has confirmed that all required packers will be ready for service by mid-December, 2023.

Starting the Green Bin Program and all the collection system changes that go with it just before the holiday season is not recommended. The holiday season produces additional quantities of recyclables and garbage coupled with longer collection cycles. Based on past experiences, the collection system begins to normalize by mid-January; therefore, a start date for Green Bin collection is scheduled for Monday, January 15, 2024.

Part B – Decisions on Curbside Collection Services

A summary of the proposed service changes (i.e., number of pickups per year) and those services that are not changing are identified in Tables ES1a and ES1b.

Table ES1a: Summary of Changes to the Number of Curbside Pickups as Part of the New Collection System (Where Applicable)

Collection Service and/or Items to Collect	Current Services – Number of Pickups per Year	Proposed Services – Number of Pickups Per Year	Can these Items be Brought to the Enviro-Depots?
Green Bin	0	50	Under review
Garbage (including 3 Container Limit Exemption Pickups)	42	26	Yes, no change
Small Furniture/Small Bulky Item Collection	42	26	No, no change
Blue Box	42	50	Yes, no change
Yard Waste Collection	5	5	Yes, no change
Leaf Collection	3	4	Yes, no change
Diapers and Incontinence Products	42	26	Yes, no change
Pet Waste	42	26	Yes, no change
Large Furniture/Large Bulky Item Collection (see Table ES1b for changes)	42	26	No, no change

Table ES1b: Summary of Other Changes as Part of the New Collection System

Collection Service and/or Items to Collect	Current	Proposed	Comment
Container/bag limit per pickup	3	3	No change to limit for garbage per pickup noting that the number of pickup days has been reduced from 42 to 26. In addition, 50 Green Bin pickups have been added.
Garbage Tag Fee and Bagged Residential Garbage	\$1.50	\$2.00	This fee was last increased 2012. It represents an average annual increase of 2.5%.

Collection Service and/or Items to Collect	Current	Proposed	Comment
Large Furniture/Large Bulky Item Collection	Placed at the curb	Booking Service	New Service – Pickups for these items need to be booked on-line, by email or through a telephone call. There is no additional charge.

Part C – Green Bin Pilot Projects for Multi-residential Buildings

A multi-residential Green Bin pilot project is being designed to help address the Ministry of the Environment, Conservation and Parks (MECP) Food and Organic Policy, which has defined targets indicating that “multi-residential buildings need to implement an organics management program that will achieve at least 50 per cent waste reduction and resource recovery of food and organic waste by 2025.”

The proposed pilot project will introduce the collection of Green Bin materials at about ten locations (approximately 1,500 residential units). Work is underway to determine suitable locations by looking at demographics and size of buildings, while including locations that have inside cart/bin storage and others with outside storage. The multi-residential pilot project will be conducted to ensure both qualitative and quantitative data is collected. The findings will assist with future rollout of a source separated Green Bin program to multi-residential households. Implementing a Green Bin pilot project program in apartment buildings in the late fall (2023) will provide an opportunity to demonstrate the collection of Green Bin materials in multi-residential buildings prior to the required implementation timelines set in the Food and Organic Policy.

Financial Impact/Considerations

Funding for the Green Bin program as part of the 60% Waste Diversion Action Plan was approved on March 2, 2020 and with budget amendments made and approved on January 12, 2021. The estimated amount allocated for the Green Bin program and related collection matters is \$5 million annually with a capital cost estimated at \$15 million. These estimates were prepared in 2018.

The collection services and proposed service delivery arrangements in this Civic Works Committee (CWC) report are items that are contained within approved service budgets.

Linkage to the Corporate Strategic Plan

Municipal Council continues to recognize the importance of waste management and the need for a more sustainable and resilient city in the development of its 2023-2027 Strategic Plan for the City of London. Specifically, London’s efforts in waste management address the following Areas of Focus; Climate Action and Sustainable Growth and Well-Run City.

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.

On April 12, 2022, Municipal Council approved the Climate Emergency Action Plan which includes Area of Focus 5, Transforming Consumption and Waste as Part of the Circular Economy. In addition, the 60% Waste Diversion Action Plan, including the Green Bin program, addresses various aspects of climate change mitigation within the waste management services area including greenhouse gas (GHG) reduction.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Relevant reports that can be found at www.london.ca under Council meetings include:

- RFP-2022-224 Green Bin Processing Services, (July 18, 2023 meeting of the Civic Works Committee (CWC), Item #2.3)
- RFP-2022-105 Supply and Distribution of Green Bins and Kitchen Containers, (April 21, 2023 meeting of the CWC), Item #2.3)
- Updates: Green Bin Implementation, (June 21, 2022 meeting of the CWC, Item #2.3)
- Green Bin Program Design – Community Engagement Feedback (March 30, 2021 meeting of the CWC, Item #2.13)
- Community Engagement on Green Bin Program Design (November 17, 2020 meeting of the CWC, Item #2.3)
- Business Case 1 – 60% Waste Diversion Action Plan – 2020-2023 Multi -Year Budget (January 30, 2020 meeting of the Strategic Priorities & Policy Committee (SPPC), Item #4.12a)
- 60% Waste Diversion Action Plan – Updated Community Feedback (September 25, 2018 meeting of the CWC, Item #3.2)
- Public Participation Meeting 60% Waste Diversion Action Plan – Additional Information (September 25, 2018 meeting of the CWC, Item #3.2)
- 60% Waste Diversion Action Plan (July 17, 2018 meeting of the CWC, Item #3.1)

1.2 Recent Green Bin Program Development

The 60% Waste Diversion Action Plan including the Green Bin Program, related collection matters and other waste diversion activities was approved October 2, 2018 on the understanding that final funding decision would occur during the 2020-2023 Multi-Year Budget deliberations which began December 2019.

Funding was approved on March 2, 2020 and with budget amendments made and approved on January 12, 2021. Major actions have taken place with respect to:

- Community engagement on Green Bin program design;
- Approval and ordering Green Bin and garbage split packers for collection services;
- Approval and ordering Green Bin containers and kitchen containers; and
- Approval of processing facility for London's Green Bin materials.

1.3 Previous Community Engagement with Respect to Collection Services when Green Bin Program Starts

The Green Bin community engagement process was conducted in early 2021 to engage the community and solicit feedback in designing London's Green Bin program. The community engagement focused on five key decisions for overall program design which influence one another: types of materials accepted, size of curbside container, type of kitchen container and type of bin liners permitted. The engagement process also asked Londoners what concerns they may have with bi-weekly garbage collection.

The City's community engagement online platform, GetInvolved.ca, was used to provide information, and collect feedback on each of the key decision areas. The online feedback form received 3,777 responses, the webpage had 9,180 unique visitors and about 54,000 total page views. A comprehensive report was presented to CWC on March 30, 2021. Extracts from the March 30, 2021 report are provided again in Appendix A with respect to bi-weekly garbage pick up.

2.0 Discussion and Considerations

Section 2.0 is divided into three parts:

Part A – Overview of Green Bin Delivery Schedule and Program Start Date

Part B – Decisions on Curbside Collection Services

Part C – Green Bin Pilot Projects for Multi-residential Buildings

Part A – Overview of Green Bin Delivery Schedule and Program Start Date

2.1 Delivery Schedule

The City's Green Bin container and kitchen container contractor, IPL, will be responsible for distributing the products to approximately 121,000 households in London. The kitchen container will be placed inside the Green Bin along with an information package. The distribution will take about 2 months and involve the following:

- Shipping and receiving products in London;
- Assembly of products;
- Insertion of information;
- Resources and equipment (e.g., distribution vehicles, loading and unloading equipment, labour, short-term storage);
- Program training and awareness; and
- Distribution network and tracking system.

2.2 Program Start Date

The City's new Green Bin split packers have begun to arrive in London, and several are going through final inspection and review. A review of the packer build and delivery schedule has confirmed that all required packers will be ready for service by mid-December, 2023.

Starting the Green Bin Program and all the collection system changes that go with it just before the holiday season is not recommended. The holiday season produces additional quantities of recyclables and garbage coupled with longer collection cycles. Based on past experiences, the collection system begins to normalize by mid-January; therefore a start date is scheduled for Monday, January 15, 2024. This date and other major timeframes for implementing the Green Bin program are noted on Table 1.

Table 1: Major Dates and Timeframes Leading to Green Bin Program Launch

Date	Item
Early-September, 2023	Notification and availability of interim Waste Reduction & Conservation Calendar from October 1, 2023 to January 15, 2024
Mid-September, 2023	Start of promotion and education program (rolled out in phases leading up to January 15, 2024)
Mid-October, 2023	Start of Green Bin, kitchen container and program information delivery to households with curbside service
Mid-December, 2023	Completion of Green Bin delivery to households
January 15, 2024	Start date for Green Bin Program and new Collection Zones

Part B – Decisions on Curbside Collection Services

2.3 Background

Several decisions remain to complement the start up of the Green Bin Program including:

- Schedule for Collection Services (Appendix B)
- Container/bag limits and increased user fees for additional garbage (Appendix C)
- Information on how households with curbside collection services are to handle diapers and incontinence products (Appendix D)
- Information on how households with curbside collection services are to handle pet waste (Appendix E)
- Information on how households with curbside collection services are to handle large furniture and bulky items (Appendix F)

Contained in Appendices B through F are details for each of the above areas under the following headings:

- City of London Current Programs and Practices
- Information from Other Municipalities
- Staff Recommendation
- Summary and Rationale for Recommendation

2.4 Summary

A summary of the proposed service changes (i.e., number of pickups per year) and those services that are not changing are identified on Tables 2a and 2b.

Table 2a: Summary of Changes to the Number of Curbside Pickups as Part of the New Collection System (Where Applicable)

Further Details in Appendix	Collection Service and/or Items to Collect	Current Services – Number of Pickups per Year	Proposed Services – Number of Pickups Per Year	Can these Items be Brought to the Enviro-Depots?
B	Green Bin	0	50	Under review
B	Garbage (including 3 Container Limit Exemption Pickups)	42	26	Yes, no change (Bagged Garbage Fees applies)
B	Small Furniture/Small Bulky Item Collection	42	26	No, no change
B	Blue Box	42	50	Yes, no change
B	Yard Waste Collection	5	5	Yes, no change
B	Leaf Collection	3	4	Yes, no change
D	Diapers and Incontinence Products	42	26	Yes, no change
E	Pet Waste	42	26	Yes (in the same bag as garbage), no change
F	Large Furniture/Large Bulky Item Collection (see Table 2b for further changes)	42	26	No, no change

Table 2b: Summary of Other Changes as Part of the New Collection System

Further Details in Appendix	Collection Service and/or Items to Collect	Current	Proposed	Comment
B	Container/bag limit per pickup	3	3	No change to limit for garbage per pickup noting that the number of pickup days has been reduced from 42 to 26. In addition, 50 Green Bin pickups have been added.
B	Garbage Tag Fee and Bagged Residential Garbage	\$1.50	\$2.00	This fee was last increased 2012. It represents an average annual increase of 2.5%
F	Large Furniture/Large Bulky Item Collection	Placed at the curb	Call in Service	New Service – Pickups for these items need to be booked on-line, by email or through a telephone call.

A few summary highlights include:

- Green Bin and Blue Box collection will be provided weekly on the same day except where a Statutory Holiday occurs (50 pickups per year). Garbage will be provided at half the frequency and include a provision to handle garbage over the longer cycles created by Statutory Holidays;
- Currently, over the course of a year, more than 126 bags/containers (42 garbage pickups x 3 containers/bags per pickup) can be placed at the curb;
- Under the new system, over the course of a year, more than 128 Green Bins and bags/containers (50 Green Bin pickups plus 26 garbage pickups x 3 containers/bags per pickup) can be placed at the curb. In addition, there are four container/bag limit exemption periods included plus the use of an unlimited number of Blue Boxes increased to 50 pickups per year from 42;
- The fee to place additional containers/bags at the curb or to be delivered to the EnviroDepots is proposed to increase from \$1.50 to \$2.00. The last time the fee increased was in 2012;
- A portion of the households will be required to hold onto pet waste, diapers and/or incontinence products four to six additional days compared to the existing system;
- There will be a shortened period of time between Green Week pickups focused on yard waste (from every six weeks to every five weeks) and one additional Green Week for leaf collection has been added; and
- Large furniture and large bulky items will be on a booking system with a limit of 4 items per pickup. Small items will remain part of regular garbage pickup.

Part C – Green Bin Pilot Projects for Multi-residential Buildings

2.5 Background

A multi-residential, source separated, Green Bin pilot project is being designed to help address the Ministry of the Environment, Conservation and Parks (MECP) Food and Organic Policy, which has defined targets indicating that “multi-residential buildings

need to implement an organics management program that will achieve at least 50 per cent waste reduction and resource recovery of food and organic waste by 2025;”

The proposed pilot project will introduce the collection of Green Bin materials at about ten locations (approximately 1,500 residential units). Work is underway to determine suitable locations by looking at demographics and size of buildings, while including locations that have inside cart/bin storage and others with outside storage. Buildings will also be selected from a collection logistics perspective (e.g., one area of the City, direct route, etc.). The multi-residential pilot project will be conducted with existing City sanitation fleet on a weekly collection schedule. Green Bin materials will be delivered to Convertus Canada Inc. for composting.

To encourage participation and convenience, the following items will be provided to apartment units, working with the Building Superintendents:

- Written communications (e.g., flyer, guide) provided directly to households and posted in common areas/waste sorting rooms;
- Kitchen containers for each unit to sort food scraps;
- In building outreach such as a presentation with a question & answer or pop-up display; and
- Email communication with on-site Building Superintendents for periodic check-ins coupled with site visits.

Based on experience in a limited number of other municipalities, anticipated challenges for the pilot project include:

- Multi-residential buildings have garbage chutes on each floor and tenants will be required to walk their organics to the collection bin on the main or ground floor;
- Participation rates may vary depending upon household type and size;
- Space limitations ensuring access to all households; and
- Location of organic bins to reduce odours.

2.6 Pilot Project Evaluation

The multi-residential Green Bin pilot project will be conducted to ensure both qualitative and quantitative data is collected. The findings will assist with future rollout of a source separated Green Bin program to multi-residential households. The evaluation of the Green Bin Pilot Project will include:

- Participation studies and feedback surveys – to determine frequency of use and to assess satisfaction of the program;
- Captured tonnes – the amount of materials will be weighed or estimated based on volume and compared to previous estimates of expected diversion;
- Material quality and contamination inspections; and
- Evaluation of collection issues of different housing types and container types.

2.7 Tentative Timeframe

Implementing a Green Bin pilot project program in apartment buildings in the late fall (2023) will provide an opportunity to demonstrate the collection of Green Bin materials in multi-residential buildings prior to the required implementation timelines set in the Food and Organic Policy. The proposed timetable leading to the launch of the multi-residential pilot project is listed below in Table 3.

Table 3: Major Dates and Timeframes Leading to Launch of Pilot Project

Date	Item
August 2023	Finalize building selection and location logistics
September 2023	Finalize promotion and education packages for households

Date	Item
October 1, 2023	On-site set up and information packages provided to Building Superintendents
November 1, 2023	Launch of initial multi-residential buildings for Green Bin Pilot Project (target 3 to 5 buildings)
December 1, 2023 to February 1, 2024	Launch of additional multi-residential buildings for Green Bin Pilot Project (target 5 to 7 buildings)

3.0 Financial Impact/Considerations

As previously noted, funding for the Green Bin program as part of the 60% Waste Diversion Action Plan was approved on March 2, 2020 and with budget amendments made and approved on January 12, 2021. The estimated amount allocated for the Green Bin program and related collection matters is \$5 million annually with a capital cost estimated at \$15 million. These estimates were prepared in 2018.

The collection services and proposed service delivery arrangements in this Civic Works Committee (CWC) report are items that are contained within approved service budgets.

Funding for Green Bin program and related collection service changes was approved as part of the 2023 Annual Budget update on the understanding that the program was going to be implemented in mid-2023. Further delays dealing with vehicle supply chain issues have pushed the start date to late fall/early winter. For 2023, the unspent amount will be identified and reported through the 2023 Mid-Year Operating Budget Monitoring report that will be brought forward to committee in September 2023 and will form part of the Corporation's overall budget position for 2023.

Conclusion

The details presented in this CWC report are the last steps to prepare for the launch of the Green Bin Program and other collection program changes on January 15, 2024 for residents receiving curbside waste collection services. The collection services and proposed service delivery arrangements are consistent with previous discussions within London, at Committee and Council and items that have been addressed in other municipalities.

Prepared by: **Jessica Favalaro, B.Sc.**
Manager, Waste Diversion Program

Kevin Springer
Manager, Waste Collection

Mike Losee, B.Sc.
Division Manager, Waste Management

Prepared and Submitted by: **Jay Stanford, MA, MPA**
Director, Climate Change, Environment & Waste Management

Recommended by: **Kelly Scherr, P. Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure

- Appendix A March 30, 2021 CWC Report - What Are the Concerns About Bi-weekly Garbage Collection?
- Appendix B Schedule for Collection Services
- Appendix C Container Limits and User Fees
- Appendix D Diapers and Incontinence Products
- Appendix E Pet Waste
- Appendix F Furniture and Bulky Items

Appendix A

March 30, 2021 CWC Report - What Are the Concerns About Bi-weekly Garbage Collection?

The information presented below was previously provided in the March 30, 2021 CWC Report titled Green Bin Program Design – Community Engagement (Appendix F).

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Overview

During the development of the 60% Waste Diversion Action Plan (approved by Municipal Council in 2018), it was identified that a switch to bi-weekly, same day garbage collection and weekly recycling and Green Bin collection (same day) would be less costly than weekly garbage pickup. Bi-weekly garbage collection was also viewed as key to higher use of the Green Bin. It is expected that this change to the collection schedule will occur at the same time as Green Bin collection begins.

Through the engagement process City staff did endeavor to understand the concerns and challenges of a reduced garbage collection schedule for London households. These challenges and concerns are described below under Operational and Technical Considerations and include waiting four weeks between collections, if a collection is missed; holding onto diapers/sanitary products; and pet waste and/or accumulating garbage over a two-week period.

Green Bin Municipalities

Bi-weekly garbage collection is the common service level in large Ontario municipalities. Municipalities with Green Bin programs that did not initially have bi-weekly collection found that the amount of organic material collected increased by 50% to 100% with the introduction of bi-weekly garbage collection. Collection of Blue Box recyclables also increased with the introduction of bi-weekly garbage collection. Twelve of the fifteen largest Ontario municipalities with a Green Bin program have bi-weekly garbage collection (Table F1), and two of the other programs are reviewing the option or in transition to go to bi-weekly collection.

Table F1: Garbage Collection Frequency for Large Municipalities with Green Bin Collection

Garage Collection Frequency	Municipality
Weekly	Dufferin County, Hamilton ¹ , Kingston
Weekly	St. Thomas ²
Bi-weekly	Barrie, Durham, Guelph, Halton, Niagara ³ , Ottawa, Peel, Simcoe County ⁴ , Toronto, Waterloo, York Other Canadian: Calgary, Halifax, Vancouver

Notes:

¹ Reviewing bi-weekly garbage collection

² Weekly garbage, bi-weekly green bin and recycling

³ Changed to bi-weekly garbage collection in October 2020

⁴ Changed to bi-weekly garbage collection in February 2020

London's Experience with Similar Existing Programs

The 2011 to 2012 Green Bin Pilot Project tested a modified garbage collection schedule. The modified garbage collection schedule consisted of weekly garbage collection during the summer (April to September) and bi-weekly collection during the winter (October to March). Testing the modified collection schedule helped to determine public acceptance and the cost savings/increases with this type of collection schedule. This schedule was accepted by pilot project participants.

Resident Feedback Results

Details from the 2021 online resident feedback form on the concerns of bi-weekly garbage collection can be found below in Table F2.

Table F2 – Online Feedback Form Question: What concerns might you have about bi-weekly garbage collection?

Bi-Weekly Garbage Concerns (check all that apply)	Responses (%)	Number of Responses
Too long to hold diapers/sanitary products	24%	902
Too long to hold pet waste	24%	906
Too much garbage will be accumulated over a two-week period	33%	1,250
Missing a pickup will mean four weeks between collection days	48%	1,813
I have some concerns, but I support the decision of bi-weekly garbage collection and weekly recycling and Green Bin pickup	38%	1,425
I do not have concerns about bi-weekly garbage collection	26%	982
I am undecided	2%	70
Other (please specify)	4%	149
Total Responses		3,760

Residents also provided additional comments about bi-weekly garbage collection. Of the 3,760 who answered the feedback form, 28% provided one or more additional comments. Based on staff's review of the comments, over 95% of the comments are addressed by this staff report:

- 55% are related to accumulating garbage/too long to hold garbage;
- 25% are concerning nuisance factors such as pests and odours; and
- 15% were about holding diapers/sanitary products and pet waste.

The other 5% were regarding illegal dumping of garbage. The bi-weekly garbage comments were tallied by categories; therefore, residents may have provided more than one general comment, the proportion of comments was determined from all tallied comments not by the number of residents who provided a general comment.

Appendix B Schedule for Collection Services

City of London Current Programs and Practices

Curbside collection services in London are currently provided as follows:

- 42 pickups per year for garbage and recycling on a different day collection system;
- Collection day moves forward one weekday after each pickup;
- There is a 3 container/bag limit for each pickup. Additional containers/bags can be placed at the curb with a \$1.50 Bag Tag attached;
- Pickup services are not offered on Statutory Holidays;
- Green Weeks are offered 5 times per year with a focus on yard waste and 3 more Green Weeks in the fall that focus on leaves; and
- Residential bagged garbage can be dropped off at the EnviroDepots for a fee of \$1.50 per bag.

Information from other Municipalities

A review of a number of municipalities in Ontario and a few in Canada with Green Bin collection services (offered weekly with the exception of St. Thomas) has identified several different collection scheduling systems that are designed to handle the Statutory Holidays.

In general municipalities may vary in the number of days included in a collection cycle. The collection cycle may be a four or five day cycle. There is also variability in the collection on Statutory Holidays and how the collection schedule changes if not collected on a Statutory Holiday.

When addressing waste collection around Statutory Holidays, every municipality faces the unique set of circumstances presented by their collection programs, systems, and schedules, the days required to complete the work, the number of unique collection zones, the type of staff collecting (municipal staff versus a contractor), and the specifications of the contracts and agreements which define service levels.

There are generally five ways that municipalities handle Statutory Holiday collections (Table B1):

- With a few exceptions in smaller communities, most municipalities have periods of the year when the collection day changes to accommodate Statutory Holidays;
- A number of municipalities have limited the number of changes by collecting on many Statutory Holidays;
- A number of municipalities collect on the Saturday when a Statutory Holiday occurs; and
- All municipalities require change in collection days per week from twice to 12 times.

Table B1: How Statutory Holidays are Handled in Other Municipalities

How are Statutory Holidays Handled	Municipalities in this Category	How Many Times Does Collection Day Change Per Year
Current City of London - No collection on Statutory Holidays, entire collection schedule advances one business day (weekday) each pickup		42
Proposed City of London – No collection on Statutory Holidays; entire collection schedule advances one business day (weekday)		10 or 11

How are Statutory Holidays Handled	Municipalities in this Category	How Many Times Does Collection Day Change Per Year
1. Collect on all Statutory Holidays	Some smaller municipalities collect on all Statutory Holidays	0
2. Collection on Statutory Holidays (except Christmas Day and New Year's Day, which advance schedule into Saturday)	City of Barrie, Region of Durham, Region of Niagara, County of Simcoe, City of Toronto, Region of Waterloo, Region of York (Markham, Vaughan), City of Calgary	2
3. No collection on Statutory Holidays. Collection schedule advances into Saturday	City of Guelph, Region of Halton, City of Hamilton, City of Kingston, City of Ottawa, Region of Peel, City of Halifax	12
4. No collection on Statutory Holidays (4 collection zones)	County of Dufferin, City of St. Thomas	12
5. No collection on Statutory Holidays, entire collection schedule advances one business day (weekday)	City of Vancouver	12

Identified on Table B2 are the annual collection frequencies for garbage, Green Bin and Blue Box. The majority of municipalities have a similar system with garbage every two weeks (biweekly) and weekly service for Green Bin and Blue Box.

Table B2: Collection Frequency in Select Municipalities

Municipality	Annual Garbage Collection Frequency	Number of Bags (Containers) Per Pickup	Annual Green Bin Collection Frequency	Annual Blue Box Collection Frequency
Current City of London	42 pickups	3		42 pickups
Proposed City of London	Biweekly	3	Weekly	Weekly
City of Barrie	Biweekly	2	Weekly	Weekly
Region of Durham	Biweekly	4	Weekly	Weekly
City of Guelph	Biweekly	1 (cart)	Weekly	Weekly
Region of Halton	Biweekly	3	Weekly	Weekly
Region of Niagara	Biweekly	2	Weekly	Weekly
City of Ottawa	Biweekly	6	Weekly	Weekly
Region of Peel	Biweekly	4	Weekly	Weekly
County of Simcoe	Biweekly	1 (cart)	Weekly	Weekly

Municipality	Annual Garbage Collection Frequency	Number of Bags (Containers) Per Pickup	Annual Green Bin Collection Frequency	Annual Blue Box Collection Frequency
City of Toronto	Biweekly	1 (cart)	Weekly	Weekly
Region of Waterloo	Biweekly	3	Weekly	Weekly
Region of York	Biweekly	No limit to 3	Weekly	Weekly
City of Calgary	Biweekly	1 (cart)	Weekly	Weekly
City of Halifax	Biweekly	6	Weekly	Weekly
City of Vancouver	Biweekly	2 (cart)	Weekly	Weekly
County of Dufferin	Weekly	1	Weekly	Weekly
City of Hamilton	Weekly	1	Weekly	Weekly
City of Kingston	Weekly	1	Weekly	Weekly
City of St. Thomas	Weekly	2	Biweekly	Biweekly

Staff Recommendation

The new Collection Schedule will move from a 6-day collection cycle to a weekly collection for Green Bin and recycling with garbage being collected bi-weekly. The only adjustment will occur when Statutory Holidays are scheduled (12 per year).

The new calendar will continue to work off an already established letter system for each Zone A, B, C, D, E. The current F Zone will be incorporated into the existing five Zones.

The collection day will remain the same day each week until there is a Statutory Holiday. There will not be any collection service on most Statutory Holidays. All Zones will move forward one day, and this will become the same collection day each week until the next Statutory Holiday.

Operationally, each Zone will be divided in half and use a numbering system of 1 or 2. This will create collection zones A1/A2, B1/B2, C1/C2, D1/D2, and E1/E2. The Zone split is required to incorporate bi-weekly garbage collection.

To address longer collection cycles that occur because of a Statutory Holiday, an extra garbage pickup is provided to ensure that garbage is not held for any longer than 14 days. This will be scheduled in all Zones when a Statutory Holiday and Friday collection occurs. The Zone impacted will receive garbage collection for three consecutive collections; however, receive no collection on the week of the Statutory Holiday.

At the end of this Appendix are three Example Calendars to illustrate different scenarios:

- Example Calendar 1 – Collection Days for all Zones in January to March 2024;
- Example Calendar 2 – Zone D1/D2 in January to March 2024 – this example highlights how the collection day moves after a Statutory Holiday; and
- Example Calendar 3 – Zone C1/C2 in January to March 2024 – this example highlights both how the collection day moves after a Statutory Holiday and the addition of an extra garbage pickup to accommodate the longer cycle.

There will be minor changes to Green Week (Yard Waste) Collection. It will start in mid-April (instead of mid-March) and end in October with a total of 5 collections per Zone.

Collection frequency improves by one week since there will be five Zones and not six Zones to collect from (e.g., pickup will be every five weeks instead of every six weeks).

The Leaf Collection portion of the Green Week starts up in October and ends in early December. The number of pickups per Zone increase by one, moving from three pickups to four pickups.

Summary and Rationale for Recommendation

In summary, City staff view the proposed Collection Schedule changes as:

- A scheduling practice that was used in London up until 1996;
- An approach that does not require collection on Saturdays or the majority of Statutory Holidays;
- Easy to implement as households with curbside service are accustomed to adjustments in the schedule based on a previous collection systems dating back more than 40 years;
- A lower cost system compared with additional costs incurred on Saturdays and Statutory Holidays;
- Consistent with many other municipalities on the number of times in the year when households have to change their collection day;
- An approach that shares the need to change days across all five Zones; not just the same 20% of households with service on Friday.
- A schedule that recognizes the value of reduced work activities on Saturdays and Statutory Holidays when alternatives are available; and
- A scheduling system that is consistent with the Collective Agreement for CUPE 107.

Example Calendar 1 – Collection Days for all Zones in January to March 2024

January 2024 – All Zones

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15 D1/D2	16 E1/E2	17 A1/A2	18 B1/B2	19 C1/C2	20
21	22 D1/D2	23 E1/E2	24 A1/A2	25 B1/B2	26 C1/C2	27
28	29 D1/D2	30 E1/E2	31 A1/A2			

February 2024 – All Zones

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1 B1/B2	2 C1/C2	3
4	5 D1/D2	6 E1/E2	7 A1/A2	8 B1/B2	9 C1/C2	10
11	12 D1/D2	13 E1/E2	14 A1/A2	15 B1/B2	16 C1/C2	17
18	19 Family Day (no collection)	20 D1/D2	21 E1/E2	22 A1/A2	23 B1/B2	24
25	26 C1/C2	27 D1/D2	28 E1/E2	29 A1/A2		

March 2024 – All Zones

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1 B1/B2	2
3	4 C1/C2	5 D1/D2	6 E1/E2	7 A1/A2	8 B1/B2	9
10	11 C1/C2	12 D1/D2	13 E1/E2	14 A1/A2	15 B1/B2	16
17	18 C1/C2	19 D1/D2	20 E1/E2	21 A1/A2	22 B1/B2	23
24/31	25 C1/C2	26 D1/D2	27 E1/E2	28 A1/A2	29 Good Friday (no collection)	30

Example Calendar 2 – Zone D1/D2 in January to March 2024

January 2024 - Zone D (D1/D2)

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15 D1 - GB, G, R D2 - GB, R	16	17	18	19	20
21	22 D1 - GB, R D2 - GB, G, R	23	24	25	26	27
28	29 D1 - GB, G, R D2 - GB, R	30	31			

February 2024 - Zone D (D1/D2)

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
4	5 D1 - GB, R D2 - GB, G, R	6	7	8	9	10
11	12 D1 - GB, G, R D2 - GB, R	13	14	15	16	17
18	19 Family Day (no collection)	20 D1 - GB, R D2 - GB, G, R	21	22	23	24
25	26	27 D1 - GB, G, R D2 - GB, R	28	29		

March 2024 - Zone D (D1/D2)

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1	2
3	4	5 D1 - GB, R D2 - GB, G, R	6	7	8	9
10	11	12 D1 - GB, G, R D2 - GB, R	13	14	15	16
17	18	19 D1 - GB, R D2 - GB, G, R	20	21	22	23
24/31	25	26 D1 - GB, G, R D2 - GB, R	27	28	29	30

Example Calendar 3 – Zone C1/C2 in January to March 2024

January 2024 - Zone C (C1/C2)

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19 C1 - GB, G, R C2 - GB, R	20
21	22	23	24	25	26 C1 - GB, R C2 - GB, G, R	27
28	29	30	31			

February 2024 Zone C (C1/C2)

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2 C1 - GB, G, R C2 - GB, R	3
4	5	6	7	8	9 C1 - GB, R C2 - GB, G, R	10
11	12	13	14	15	16 C1 - GB, G, R C2 - GB, EG, R	17
18	19 Family Day (no collection)	20	21	22	23	24
25	26 C1 - GB, EG, R C2 - GB, G, R	27	28	29	EG = extra garbage pickup due to longer cycle	

Zone C - March 2024 Zone C (C1/C2)

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1	2
3	4 C1 - GB, G, R C2 - GB, R	5	6	7	8	9
10	11 C1 - GB, R C2 - GB, G, R	12	13	14	15	16
17	18 C1 - GB, G, R C2 - GB, R	19	20	21	22	23
24/31	25 C1 - GB, R C2 - GB, G, R	26	27	28	29	30

Appendix C Container Limits and User Fees

City of London Current Programs and Practices

London's current collection system allows 3 containers/bags per pickup (42 times per year) and 4 times per year when unlimited bags/containers can be placed at the curb. Over the course of a year more than 126 bags/containers (42 x 3) can be placed at the curb.

Residents who have additional garbage may set out at the curb with a garbage tag or drop-off at an EnviroDepot for \$1.50 per container/bag. This fee has remained unchanged since 2012.

In addition, an unlimited number of Blue Boxes can be placed at the curb 42 times per year. Blue Box materials can also be dropped off without charge at the EnviroDepots.

Information from Other Municipalities

A review of a number of municipalities in Ontario and a few in Canada with Green Bin collection services (offered weekly with the exception of St. Thomas) has identified a range of garbage bag/container limits and user fees in use (Table C1):

- The number of garbage containers/bags permitted for biweekly collection ranges from 2 to 6 per pickup. For municipalities that have wheeled carts it is 1 to 3 carts per pickup noting that wheeled carts usually hold 2 or more bags;
- The number of garbage containers/bags permitted for weekly collection ranges from 1 to 2 per pickup; and
- User fees for extra garbage containers/bags range from \$1.75 to over \$6.00 with the average price from those municipalities with fees being about \$2.60.

Table C1: Bag Limits and User Fees for Municipalities with Green Bin Service

Municipality	Annual Garbage Collection Frequency	Number of Containers/Bags Per Pickup	Number of Containers/Bags Per Year	Are Extra Containers/Bags Permitted?	Cost for Extra Containers/Bags
Current City of London	42 pickups	3	126	Yes	\$1.50
Proposed City of London	Biweekly	3	78	Yes	\$2.00
City of Barrie	Biweekly	2	52	Yes	\$3.00
Region of Durham	Biweekly	4	104	Yes	\$2.50
City of Guelph	Biweekly	1 (cart)	26 (carts)	No	Not Available
Region of Halton	Biweekly	3	78	Yes (3 extra)	\$2.00
Region of Niagara	Biweekly	2	52	Yes	\$2.85
City of Ottawa	Biweekly	6	156	No	Not Available
Region of Peel	Biweekly	4	104	Yes	\$3.00
County of Simcoe	Biweekly	1 (cart)	26 (carts)	Yes (5 extra)	\$3.00

Municipality	Annual Garbage Collection Frequency	Number of Containers/Bags Per Pickup	Number of Containers/Bags Per Year	Are Extra Containers/Bags Permitted?	Cost for Extra Containers/Bags
City of Toronto	Biweekly	1 (cart)	26 (carts)	Yes	\$6.14
Region of Waterloo	Biweekly	3	78	Yes	\$2.00
Region of York	Biweekly	2 (Georgina, King, East Gwillimbury), 3 (Aurora, Richmond Hill, Vaughan, Stouffville, Newmarket), No limit (Markham)	52 or 78	Yes	\$2.00 (Georgina, East Gwillimbury), \$2.25 (Stouffville), \$2.30 (Richmond Hill), \$2.50 (King), \$2.60 (Vaughan), \$3.00 (Newmarket), \$5.00 (Aurora)
City of Calgary	Biweekly	1 (cart)	26 (carts)	Yes	\$3.00
City of Halifax	Biweekly	6	156	No	Not Available
City of Vancouver	Biweekly	2 (cart)	52 (carts)	Yes	\$2.00
County of Dufferin	Weekly	1	52	Yes	\$2.00
City of Hamilton	Weekly	1	52	Yes	None (each house receives a maximum of 26 garbage tags/year)
City of Kingston	Weekly	1	52	Yes	\$2.00
City of St. Thomas	Weekly	2	52	Yes	\$1.75

Staff Recommendation

Based on a review of other municipalities and experience in London with existing collection services, the following is proposed:

- 1 Green Bin per pickup (more bins can be purchased by the householder) with 50 pickups per year;
- 3 garbage containers/bags per pickup with 26 total pickups per year;
- 1 or 2 or more Blue Boxes per pickup with 50 total pickups per year;
- Increase the fee for Bag Tags and Residential Bagged Garbage from \$1.50 to \$2.00 per container/bag; and
- No change to the number of exemption collection days being offered.

Over the course of a year, the following would occur at the curb; 50 Green Bins plus up to 78 containers/bags of garbage with the allowance for unlimited containers/bags four times per year. Over the course of the year more than 128 containers/bags (50+(3 x 26)) of garbage and Green Bin can be placed at the curb. In addition, unlimited number of Blue Boxes can be placed at the curb 50 times per year.

Summary and Rationale for Recommendation

In summary, City staff view the proposed changes coupled with items not changing as:

- A reasonable reduction in the number of containers/bags of garbage to encourage waste reduction and waste diversion;
- An approach that encourages the weekly use of the Green Bin to handle materials that can become odourous;
- An approach that encourages more recyclables to be captured by households and placed in Blue Boxes that are collected more frequently;
- An appropriate approach to engage Londoners in starting a new initiative and keeping the number of changes to a minimum; and
- A reasonable increase of \$0.50 in fee for Bag Tags and Residential Bagged Garbage (from \$1.50 to \$2.00 per container/bag) that is on the lower end compared with other municipalities. It is also a fee that encourages the use of Green Bin and more recycling. This fee has not changed since 2012.

Appendix D Diapers and Incontinence Products

City of London Current Programs and Practices

London's current collection system allows diapers and incontinence products to be placed inside garbage bags or containers for collection as part of regular garbage collection (collected 42 times per year). Should diapers and/or incontinence products require an additional container or bag, a fee of \$1.50 is required for a Bag Tag or delivery of a container/bag to the EnviroDepots.

On April 13, 2021, London Council approved that the Green Bin program in London would exclude diapers and sanitary products.

Information from Other Municipalities

A review of a number of municipalities in Ontario and a few in Canada with Green Bin collection services (offered weekly with the exception of St. Thomas) has identified a few different solutions for handling diapers and incontinence products when Green Bin service is offered (Table D1):

- The majority of municipalities do not allow diapers and incontinence products in the Green Bin (only Region of York and City of Toronto allow) and these materials are placed in the garbage;
- A few municipalities help households with diapers and incontinence products by offering free disposal at landfill or depots;
- A few municipalities help households with diapers and incontinence products by offering exemptions at the curb such as free collection in clear bags or free garbage tags to go over the container limit; and
- Most municipalities, with weekly or biweekly garbage pickup, do not have any special services for managing diapers and incontinence products.

Table D1: Municipal Practices to Manage Diapers and Incontinence Products

Municipality	Place in Garbage (Number of Pickups)	Place in Green Bin (Number of Pickups)	Description of Special Programs Offered
Current City of London	Yes (42)	No	Not offered
Proposed City of London	Yes (26)	No	Not offered
City of Barrie	Yes (26)	No	From May 1 – October 31, residents can dispose of a maximum 2 clear bags of diapers/sanitary products (only) per week at the landfill at no charge.
Region of Halton	Yes (26)	No	A diaper bag tag program where households may receive diaper bag tags that allow them to exceed the three-bag limit without having to purchase a \$2 bag tag. Up to 40 tags per year free of charge. Must be in clear bags. Free drop-off at Halton Landfill, clear or black bags accepted.

Municipality	Place in Garbage (Number of Pickups)	Place in Green Bin (Number of Pickups)	Description of Special Programs Offered
Region of Niagara	Yes (26)	No	A diaper exemption program where eligible residents can apply for an exemption to their bi-weekly waste collection on weeks when garbage is not collected. Clear bags required.
City of Ottawa	Yes (26)	No	A sign-up program for the collection of diapers/sanitary products, on weeks when garbage is not collected.
Region of Waterloo	Yes (26)	No	Free diaper drop-off at depots (clear bags are mandatory) and a Medical Exemptions program.
County of Dufferin	Yes (52)	No	Not offered
Region of Durham	Yes (26)	No	Not offered
City of Guelph	Yes (26)	No	Not offered
City of Hamilton	Yes (52)	No	Not offered
City of Kingston	Yes (52)	No	Not offered
Region of Peel	Yes (26)	No	Not offered
City of St. Thomas	Yes (52)	No	Not offered
County of Simcoe	Yes (26)	No	Not offered
City of Calgary	Yes (26)	No	Not offered
City of Halifax	Yes (26)	No	Not offered
City of Vancouver	Yes (26)	No	Not Offered
City of Toronto	Yes (26)	Yes (52)	
Region of York	Yes (26)	Yes (52)	

Staff Recommendation

Based on a review of other municipalities and experience in London with existing collection services, the following is proposed:

- There will be no exemption programs (e.g., use of clear bags, tags, extra bags) for diapers and/or incontinence products. These items will be collected 26 times per year within the proposed 3 container/bag limit versus the current 42 times per year within the same limit;
- No changes to how diapers and/or incontinence products are handled by the household;
- Should an additional container/bag be required, a Bag Tag at the curb can be used or the bagged garbage can be delivered to the EnviroDepots (i.e., both have a current fee of \$1.50 which is proposed to increase to \$2.00); and
- City staff will further review diapers and/or incontinence products handling in 2024 and submit a report to CWC in late 2024 on potential changes including Londoner's experiences with the longer garbage collection cycle.

Summary and Rationale for Recommendation

In summary, City staff view the proposed changes for handling diapers and/or incontinence products as:

- An approach consistent with a number of municipalities that have Green Bin programs and garbage pickup every two weeks (biweekly);
- A system that requires homeowners to bag and hold diapers and/or incontinence products between four and six days longer than current handling practices (i.e., currently collected 42 times per year versus the change to 26 times per year);
- A system that does not change how diapers and/or incontinence products are bagged; and
- A defined period of time for a review of handling practices for diapers and/or incontinence products.

Appendix E Pet Waste

City of London Current Programs and Practices

London's current collection system allows dog waste, kitty litter and other pet waste to be bagged and placed inside garbage containers or bags for collection as part of regular garbage collection (collected 42 times per year).

Some London households have found that dog waste is easily managed using a backyard digester (sold at the EnviroDepots for a subsidized price). However, digesters cannot manage kitty litter, and may not be practical for some households.

London offers in-ground dog waste disposal containers at its dog parks and has implemented a pilot project for up to ten in-ground dog waste disposal units in City parks

On July 25, 2023, London Council approved the processing of food waste and soiled paper at Convertus Canada Inc. London Council also approved the price to add pet waste and/or food waste contained inside plastic bags at a future date.

Information from Other Municipalities

A review of a number of municipalities in Ontario and a few in Canada with Green Bin collection services (offered weekly with the exception of St. Thomas) has identified two separate approaches for managing pet waste (Table E1):

- A number of municipalities do not allow pet waste in the Green Bin. In these communities pet waste goes in the garbage that is collected either weekly or bi-weekly;
- A number of municipalities allow pet waste to be placed inside the Green Bin, generally inside paper or certified compostable bags for feces;
- A couple of municipalities allow pet waste placed in regular plastic bags and then placed in the Green Bin;
- A number of municipalities have separate dog waste handling systems in dog parks and regular parks; and
- No municipalities surveyed provided separate curbside solutions for pet waste.

Table E1: Municipal Programs to Manage Pet Waste

Municipality	Place in Garbage (Number of Pickups)	Place in Green Bin (Number of Pickups)	Other Approaches Available in Dog Parks and/or Municipal Parks
Current City of London	Yes (42)	No	In-ground containers at Dog Parks. Pilot project underway for Parks with in-ground containers.
City of Barrie	Yes (26)	No	
County of Dufferin	Yes (52)	No	
Region of Durham	Yes (26)	No	
Region of Halton	Yes (26)	No	
City of Hamilton	Yes (52)	No	In-ground dog waste containers in some parks (2020); paused shortly after due to the pandemic and not re-introduced.
City of Kingston	Yes (52)	No	

Municipality	Place in Garbage (Number of Pickups)	Place in Green Bin (Number of Pickups)	Other Approaches Available in Dog Parks and/or Municipal Parks
Region of Peel	Yes (26)	No	In-ground dog waste containers in parks (Mississauga only).
City of Halifax	Yes (26)	No	In-ground dog waste containers in parks.
City of Vancouver	Yes (26)	No	Dog waste bins in parks
City of Guelph	Yes (26)	Yes (52)	
Region of Niagara	Yes (26)	Yes (52)	In-ground dog waste containers in parks.
City of Ottawa	Yes (26)	Yes (52)	
City of St. Thomas	Yes (52)	Yes (26)	
County of Simcoe	Yes (26)	Yes (52)	
City of Toronto	Yes (26)	Yes (52)	Organics bins in parks specifically for pet waste.
Region of Waterloo	Yes (26)	Yes (52)	In-ground dog waste containers in parks.
Region of York	Yes (26)	Yes (52)	
City of Calgary	Yes (26)	Yes (52)	

Staff Recommendation

Based on a review of other municipalities and experience in London with existing collection services, the following is proposed:

- Pet waste will remain in the garbage and it will be collected 26 times per year versus the current 42 times per year;
- No changes to how pet waste is handled by the owner;
- City staff will further review pet waste handling in 2024 and submit a report to CWC in late 2024 on potential changes including Londoner's experiences with the longer cycle for handling pet waste. The review will include dog waste services in City parks.

Summary and Rationale for Recommendation

In summary, City staff view the proposed change for handling pet waste as:

- An approach consistent with a number of municipalities that have Green Bin programs and garbage pickup every two weeks (biweekly);
- A system that requires homeowners to bag and hold pet waste between four and six days longer than current handling practices;
- A system that does not change how pet waste is bagged; and
- A defined period of time for a review of handling practices for pet waste.

Appendix F Furniture and Bulky Items

City of London Current Programs and Practices

London's current collection system allows small and large furniture and large bulky items to be placed beside regular garbage each pickup (42 times per year). These items are not included in the 3 container/bag limit. There is a 2 cubic metre limit.

There are important instructions to make sure these items are placed correctly at the curb for handling by sanitation operators.

Large furniture and large bulky items can be collected in the rear packers because the loading area of the packer (i.e., the hopper) can safely accommodate these materials. Large items cannot be safely accommodated in split rear packers or side loading packers due to space limitations.

Information from Other Municipalities

A review of a number of municipalities in Ontario and a few in Canada with Green Bin collection services (offered weekly with the exception of St. Thomas) has identified a range of options for managing small and large furniture and bulky items (Table F1):

- Not collected at the curb – these municipalities direct households to depots, transfer stations and/or landfill. Disposal fees apply;
- Booking required; then place with garbage on collection day - some municipalities have specific fees for items to be picked up;
- Booking required; then place with garbage on collection day – some municipalities have no fees but limit the number of items to be picked up; and
- Place with garbage on collection day – some municipalities allow collection on regular garbage day with a separate collection vehicle (large items), have no fees but may limit the number of items.

Table F1: Municipal Programs that Manage Large Furniture and Large Bulky Items

Municipality	Description	Frequency of Pickup	Fees	Limit
Current City of London	Place with garbage on collection day	Every pickup	No fee	2 cubic metre limit
Proposed City of London	Booking required for large furniture and bulk items; then place with garbage on collection day	Every pickup	No fee	4 item limit
City of Barrie	Not collected at the curb		Landfill site – fees apply	No limit
City of Kingston	Not collected at the curb		Private facilities – fee apply	No limit
City of St. Thomas	Not collected at the curb		Community depot - \$135 per tonne	No limit
City of Calgary	Not collected at the curb		Landfill site – fees apply	No limit
City of Vancouver	Not collected at the curb		Depot, transfer station or landfill – fees apply	No limit

Municipality	Description	Frequency of Pickup	Fees	Limit
County of Dufferin	Booking required; then place with garbage on collection day	Monthly	\$20 - 4 items \$20 - appliances \$30 - refrigerant appliances	No limit
City of Guelph	Booking required; then place with garbage on collection day	Every pickup	\$35 - one item \$47.70 - refrigerant appliances	No limit
County of Simcoe	Booking required; then a specific time for pickup is provided	On demand	\$50 - 5 items +\$10 - mattresses +\$15 – refrigerant appliances	
City of Hamilton	Booking required; then place with garbage on collection day	Every pickup	No fee	4 item limit
Region of Niagara	Booking required; then place with garbage on collection day	Every pickup	No fee	4 item limit
Region of Durham	Place with garbage on collection day	Every pickup	No fee	2 item limit
Region of Halton	Place with garbage on collection day	Every pickup	No fee	3 item limit
City of Ottawa	Place with garbage on collection day	Every pickup	No fee	Counts towards collection day 6 item limit
Region of Peel	Place with garbage on collection day	Every pickup	No fee	No limit
City of Toronto	Place with garbage on collection day	Every pickup	\$20.95 annual charge	No limit
Region of Waterloo	Place with garbage on collection day	Every pickup	No fee	3 item limit
Region of York (Markham)	Place with garbage on collection day	Every pickup	No fee	3 item limit
Region of York (Vaughan)	Place with garbage on collection day	Every pickup	No fee	Counts towards collection day 3 item limit
City of Halifax	Place with garbage on collection day	Every pickup	No fee	1 item limit

Staff Recommendation

Based on a review of other municipalities and experience in London with existing collection services including the number of available rear packers, programs offered by

the City of Hamilton (population 560,000) and Region of Niagara (population 495,000) represent program components that are helpful to London (details at end of this Appendix).

It is proposed that a booking system that allows large furniture and large bulky items at the curb on scheduled garbage collection days without additional charges starting October 1, 2023 be established for London. The early start date versus starting at the same time as the Green Bin program is for two reasons:

- To accommodate the introduction of the split rear packers as older rear packers are phased out due to end of lifecycle; and
- To start the awareness period and provide a grace period before the Green Bin program starts.

Requirements for Booking System Application

To book a pickup, a household must:

- Send in request at least five business days before regular garbage pickup day;
- Enter the address and the number of items to be picked up (there is a 4 item limit); and
- If on-line booking is not accessible, instructions for an email booking or booking over the telephone will be available.

How it works

- Once booked, households will be provided instructions on how to place large furniture and bulky items at the curb on the next regularly scheduled garbage pickup day; and
- The instructions will include any special handling provisions such as tying down any sofa beds or recliners that may come apart during loading.

Summary and Rationale for Recommendation

In summary, City staff view the proposed changes for handling large furniture and large bulky waste as:

- A consistent approach with a number of municipalities;
- An approach that permits households to continue with similar practices as now but with one new step that will assist with scheduling pickups along routes to ensure the most efficient collection is provided;
- A lower cost system versus a non-booking system which requires collection vehicles to search for items;
- An approach that can be explained with names, descriptions, visuals and size dimensions to be as accessible as possible; and
- A program that can be managed through a simple on-line or call-in booking process.

Additional Information - Extracts from Booking Services for Furniture and Bulky Items in Two Ontario Municipalities (from websites)

City Hamilton

LEARN HOW TO REQUEST ONLINE PICK UP NEW! ONLINE BULK PICK UP REQUEST FORM FOR BULK ITEMS AND FURNITURE

The self service bulk pick up form is now available. The program is limited to single family homes with 5 units or less that place their waste curbside on collection day. **At this time, town homes are not eligible to use the online bulk pick up service.**

The self service form follows the same rules as our call in service with respect to what you can and cannot place at the curb for bulk collection. Please see the tips below to ensure you know what items are acceptable vs unacceptable to place at the curb for bulk collection.

- A maximum of four items will be picked up per booking
- Make sure each item does not weigh more than 90 kg (200 lb) and is not longer than 1.2 m (4 ft).
- **Extra garbage bags require a trash tag and are not collected as bulk garbage.**

Collection for online bulk pickup requests will take place on your collection day in two weeks.

Request bulk pick up

Or call [905-546-2489](tel:905-546-2489) at least one week before you want your bulk garbage picked up. Pick ups are scheduled on the same day as your regular waste collection day.

Tips for bulk items and furniture pick up

- Once you have scheduled a bulk pick up, your **items need to be at the curb by 7 am on your pick up day.**
- **A maximum of four items** will be collected each time you schedule a bulk pick up.
- **All mattresses and all box springs must be wrapped and sealed in plastic wrap or bags with no exception. Unwrapped/unsealed items will not be collected.**
- Any bulk items with evidence of bed bugs and/or biohazardous materials (i.e. bodily fluids), must be wrapped and sealed in plastic wrap or bags. Unwrapped/unsealed items will not be collected.
- Use plastic bags, shrink wrap or clear tarps for wrapping bulk.
- Cracks and openings in the **plastic wrap must be sealed with tape** to create a fully protective barrier for collectors.
- Notify the City if you are aware or there is evidence of bed bugs or bio-hazardous materials on your bulk items scheduled for pick-up, [call 905-546-2489](tel:905-546-2489).
- When disposing of Car Seats, **cut the straps/buckles and remove the padding** before placing it at the curb.
- A two-person crew must be able to lift what you put out for pick up. Each **item must not weigh more than 90 kg (or 200 lbs).**
- Bathtubs must be broken into pieces weighing no more than 23 kg (50 lbs each); remove cast iron legs as metal is not an acceptable item for bulk pick up.
- **Batteries must be taken out** before putting items at the curb.
- Sofa beds and recliners must be tied so they do not unfold.
- **Wood (non-pressure-treated) cannot be longer than 1.2 m (4 ft).** It must be bundled and tied. **Pressure treated wood and rail ties will not be collected.**
- **Carpet** must be rolled, bundled and tied. The **maximum length is 1.2 m (4 ft).**

Bulk items and furniture can be used again

- Give furniture and other big items in good condition to a friend or relative who could put them to good use
- Donate items to an organization that accepts used goods
- Bring it to the Reuse Store at the Hamilton Mountain Community Recycling Centre
- [Recycle your Electronics](#)
- Sell on buy-and-sell websites such as eBay, Kijiji, or Facebook Marketplace

Region of Niagara

Request Large Item Pick-up

You can request to have large household items picked up on your regular garbage collection day. There is a four item limit per garbage collection, per eligible residential unit.

Submit requests at least two business days before your regular garbage collection day to make arrangements.

Availability

- Collection is for large household items (smaller items can be placed in a garbage bag)
- Available for single family homes and apartment buildings of two to six units only, with the exception of eligible mixed-use / multi-residential properties in Niagara-on-the-Lake
- Property managers for Niagara-on-the-Lake mixed-use / multi-residential properties will need to contact their collection contractor directly to book a large item collection
- Wainfleet Cottage area is eligible for weekly large item pick-up between May 1 and Oct. 31, and will need to contact their collection contractor directly to book a large item collection for an off-week not presented as an available pick-up day in the large item tool
- **Not for extra garbage generated from cleaning out your home or as a result of a move**

Large Item Pick-up Application

Top of Form

Pick-up Address

Requests must be received at least two business days before your regular garbage collection day to make arrangements.

Enter your address to find your pick-up date. **It may take 10 to 15 seconds for your address to appear once you type it in the form below.** Once your address appears, select it from the drop-down. Addresses that cannot be found will show 'no matches found'.

Can't find your address? Book over the phone

- St. Catharines, Niagara-on-the-Lake, Niagara Falls, Port Colborne, Welland and Fort Erie - Call Miller Waste Systems at 1-833-621-0726
- Grimsby, Lincoln, Pelham, Thorold, Wainfleet and West Lincoln - Call Green for Life at 1-855-971-4550

Green Bin and Collection Program Changes

Prepared for Civic Works Committee Meeting on August 15, 2023



#LdnOnt
ClimateAction

Collection System (previously approved)

- Weekly Green Bin and Blue Box
- Bi-weekly Garbage
- Need to address Statutory Holidays
- Community engagement (early 2021) on Green Bin program design and concerns with bi-weekly garbage:
 - 3,777 responses
 - 9,180 unique visitors
 - 54,000 total page views



Curbside Green Bin and Kitchen Container (Provided) (previously approved)

Will be delivered to about 110,000 to 120,000 households with curbside service

Features:

- Size = 45 litres
- Height = about 60 cm (24 in)
- Has wheels

Features:

- Size = 7 litres
- Handle



What Goes in the Green Bin (previously approved)

Food Waste	Food-soiled Paper Products	Other Items
<ul style="list-style-type: none"> • Baked goods, candies • Bread, cereal, pasta, noodles, rice, beans, grains • Coffee filters and grounds, paper teabags • Dairy products, including milk, yogurt, butter, cheese • Dry baking ingredients, herbs, spices • Eggs, eggshells • Fats, cooking oils, food grease (liquid or solid) • Fruits and vegetables (cooked or raw, including peels, scraps and pits) • Meat, poultry, seafood, giblets, bones • Nuts, seeds • Salad dressing, mayonnaise, gravy, sauces 	<ul style="list-style-type: none"> • Paper napkins, paper towel, tissues (provided they are free of contaminants, such as household cleaners) • Paper plates, cups, muffin wrappers (un-waxed and un-plasticized) • Pizza boxes, cardboard • Un-plasticized soiled paper food packaging (such as flour bags) • Cardboard egg cartons 	<ul style="list-style-type: none"> • Household plants (including soil), cut flowers • Pumpkins • Wooden stir sticks, chop sticks, popsicle sticks, toothpicks • Newsprint, paper bags (to wrap food and line containers) • Waxed paper

Bin/Container Liners (Not Provided) – Resident's Choice (previously approved)

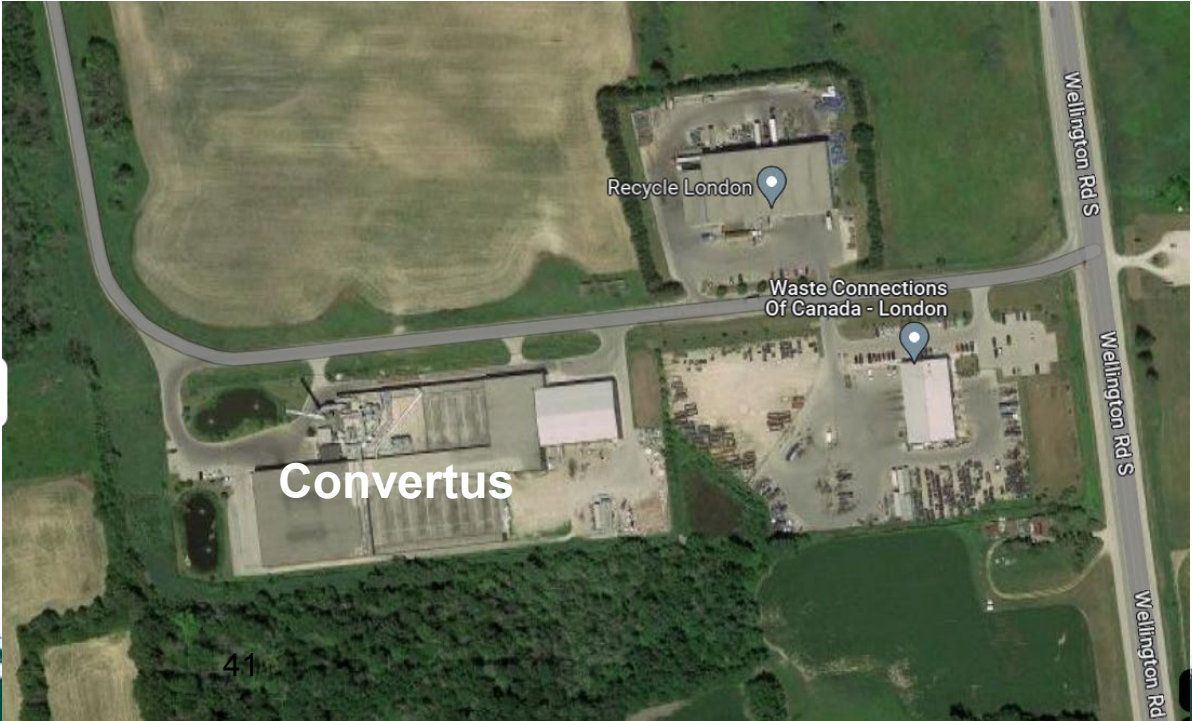


Kitchen container liners \$0.15 to \$0.67 per bag

Small Green Bin liners: \$0.37 to \$1.50 per bag

Large Green Bin liners: \$0.80 to \$1.60 per bag

Green Bin Processing – Convertus Canada Inc. (previously approved)



Major Dates Leading to Program Launch

Date	Item
Early-Sept., 2023	Interim Waste Reduction & Conservation Calendar from Oct. 1, 2023 to Jan. 15, 2024
Mid-Sept., 2023	Start of promotion and education program
Mid-Oct., 2023	Start of Green Bin, kitchen container and program information delivery to households
Mid-Dec., 2023	Completion of Green Bin delivery to households
Jan. 15, 2024	Start date for Green Bin Program and new Collection Zones

Remaining Decisions and/or Changes

- Collection Schedule
- Container Limit
- Bag Tag and Bagged Residential Garbage Fees
- Managing Pet Waste, Diapers and Incontinence Products
- Large Furniture and Large Bulky Items
- Need for Interim Calendar
- Monitoring and Reporting Back

Green Bin, Blue Box and Garbage Collection (3 Container/Bag Limit)

Collection Service and/or Items to Collect	Current Services – Number of Pickups/Yr	Proposed Services – Number of Pickups/Yr
Green Bin	0	50
Garbage (including 3 Container Limit Exemption Pickups)	42	26
Blue Box	42	50

- Current – 126+ bags/containers of garbage 42 times per year with 3 Container/Bag Limit
- Proposed – 128+ bags/containers of garbage (26 times) and Green Bin (50 times) per year with 3 Container/Bag Limit



Green Bin, Blue Box and Garbage Collection – Example Schedule

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
4	5 D1 - GB, R D2 - GB, G, R	6	7	8	9	10
11	12 D1 - GB, G, R D2 - GB, R	13	14	15	16	17
18	19 Family Day (no collection)	20 D1 - GB, R D2 - GB, G, R	21	22	23	24
25	26	27 D1 - GB, G, R D2 - GB, R	28	29		



Green Bin, Blue Box and Garbage Collection – Statutory Holidays

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2 C1 - GB, G, R C2 - GB, R	3
4	5	6	7	8	9 C1 - GB, R C2 - GB, G, R	10
11	12	13	14	15	16 C1 - GB, G, R C2 - GB, EG, R	17
18	19 Family Day (no collection)	20	21	22	23	24
25	26 C1 - GB, EG, R C2 - GB, G, R	27	28	29	EG = extra garbage pickup due to longer cycle	



Garbage Tag Fee and Bagged Residential Garbage Delivered to EnviroDepots

- Current fee for both is \$1.50
- Has been in place at this fee level since 2012
- Proposed to change to \$2.00
- Other municipalities range from \$1.75 to over \$6.00 with the average price being about \$2.60



Managing Pet Waste, Diapers, Incontinence Products

- Households with these waste items will be required to hold onto them 4 to 6 days longer than current garbage collection system
- EnviroDepots represent an opportunity if service is needed before a scheduled pickup for a proposed fee of \$2.00 (open year round with reduced hours between mid-December and mid-March)



Large Furniture and Large Bulky Items

- Split packers cannot handle large items
- Municipalities have different programs from No Service to programs with User Fees
- Current London - up to 2 cubic metres for each pickup
- Proposed London – booking service and 4 Item limit per pickup on scheduled collection day



Need for Interim Waste Reduction & Conservation Calendar

- Current Calendar ends September 30, 2023
- Need Interim Calendar from October 1, 2023 until January 15, 2024
- To reduce cost; awareness and distribution will be as follows:
 - City website - on-line system and downloads
 - RecycleCoach App (about 63,000 subscribers)
 - Hard copies available at City facilities and other locations across London



Monitoring and Reporting Back

After Launch:

- A monitoring system to determine:
 - the level of household satisfaction with the Green Bin and collection program changes
 - Focus - managing pet waste
 - Focus - managing diapers and incontinence products
- Report back late 2024 (or sooner, if needed)

Multi-Res Source Separated Organics (SSO or Green Bin) Pilot Project

- Green Bin systems are much more challenging in multi-residential buildings
- Council has supported looking at a small pilot project (“Green Cart”)
- Many challenges . . . many future opportunities. . . lots of collaboration needed



Common On-Site Containers for Multi-Res Pickup



To the Chair of the Environmental Stewardship and Action Community Advisory Committee

Executive Summary

The document below is essentially a zoning proposal that outlines what would amount to new zones to be applied to land in the city of London. The intention is to present the proposal in some form to "Re Think Zoning" sometime before Oct. 31. Prior to that submission the hope here is to enlist comments from the committee about the proposal, by way of edits, changes or improvements to the proposal. First, my sincere appreciation to the committee should it be willing to devote the time and energy to this request.

As to the proposal itself. The argument here is that London should adopt two, different zoning concepts. The first concept is that areas that have vegetation in London should be zoned: "Protected", "Supported" or "Planned for Improvement". The protection from this zoning would protect growing vegetation from harm or removal. The rationale for this zoning is to protect the ability of the vegetation to reduce emissions that contribute to global warming. The first part of the proposal is an explanation of that rationale.

The second zoning concept is to zone areas of the city and roads so as to restrict the traffic of diesel trains and trucks, such that it would be confined to certain locations for a time and ultimately eliminated. The rationale for this is to stop diesel emissions at source, a source which currently is the disproportionate cause of the highest level of emissions in the city. The second part of the proposal attempts to present that rationale in more detail.

Overall the argument here is for a new and different concept of zoning for the city. For example, currently in London land that is zoned park land, can be, following application, rezoned for industrial or residential use. If the city adopts the concept of "Protected" zoning for land with vegetation, exactly this kind of "rezoning" would not be possible.

Should the committee decide that in some way the proposal could be endorsed or supported by the committee, that of course would also be much appreciated.

Angus Johnson

Vegetation and Diesel Zoning as Climate Action Strategies in London

What we would like to do to deal with global warming is stop sources of emissions from producing emissions and protect vegetation that can reduce those emissions. To this point we are having limited success with both. By a stroke of luck, London has an opportunity to at least make some headway in dealing with both. The key to that opportunity is information about emissions that was produced by Dr. Daniel Rainham and his team from Dalhousie University who chose London as one of the thirty subjects for their environmental quality study which was completed about a year ago.

Those key pieces of information from the study are a comparison table of information and a map that accompanied the table. The map shows London with areas in different colours and the table effectively shows what the colours represent. The part of the table¹ dealing with emissions looks like this.

	0–30	30–39	40–49	50–59	60–69	70–79	80 - 100
PM_{2.5} (µg/m³)	8.3 (5.5, 9.2)	7.9 (4.7, 11.2)	7.8 (3.3, 11.1)	7.4 (2.3, 10.8)	7.1 (2.2, 10.6)	6.9 (2.3, 9.6)	6.6 (4.5, 8.4)
NO₂ (ppb)	9.3 (6.9, 12.8)	9.1 (4.4, 13.0)	8.8 (1.8, 14.9)	7.7 (0.7, 14.9)	6.1 (0.2, 12.9)	5.3 (0.1, 9.8)	4.9 (0.8, 7.9)

What this table shows is amounts of two important emissions that cause global warming, particulate matter and nitrous dioxide, actually in varying amounts. The amounts of the emissions decrease going from left to right. The map for London (Map L)¹ that accompanies this table shows the location of areas of the city that actually have these amounts or levels of emissions.

Looking at the rows from left to right the top row (0-30, 30-39 etc.) are ranges of numbers corresponding to coloured areas on the maps. For example, the (70-79) area is shown on the map with a lighter green colour. What the table shows is that the level of particulate matter in that area is 6.9 (µg/m³) and the level of nitrous dioxide is 5.3 (ppb).

The two rows of emissions show, for the purposes of the study, information related to air quality. Both emissions pose significant health hazards, related to respiratory diseases, including cancer. The higher amount of emissions is reflected in lower environmental health scores. As the amount of the emissions decrease, the areas get "healthier".

But again, the tables also show information about important emissions that contribute to global warming.

¹<https://ars.els-cdn.com/content/image/1-s2.0-S0160412022005608-mmc3.pdf>

²<https://www.sciencedirect.com/science/article/pii/S0160412022005608>

Nitrous dioxide is one of the three main greenhouse gases along with methane and carbon dioxide. It is produced in the smallest quantities (6%) (Methane 16%, CO₂ 72%) but of the three, it is the most potent contributor to global warming, with 300 times the heating potential of carbon dioxide.

Particulate matter is also a significant contributor to global warming. It warms the atmosphere by absorbing incoming and scattered heat from the sun. The most conservative estimates of its effect place it at two thirds the effect of carbon dioxide and greater than methane. Recent studies argue that it may have an even greater effect than carbon dioxide.³ These index maps can then be viewed as an emissions report card, each colored area on the map showing differing amount of emissions, or differing levels of success in dealing with global warming.

Globally the extent of emissions produced by burning fossil fuels, is 50 billion tonnes annually, and the amount of the reduction of those emissions by vegetation is 30%. The world's oceans reduce the amount by another 15%. Which means that 55% of emissions produced largely by our species, represents our residual responsibility for the heating of our planet. So, the Dalhousie team's coloured maps are really show in London, colour by colour the amount of those two emissions that are being produced.

On the maps of the thirty cities there are no areas anywhere, above 90. The highest fall in the (80-90) range. In those ranges are the best air quality scores and those measurements for particulate matter stop at 6.6 and for nitrous oxide at 4.9. Hence there is no area measured in the thirty cities that is entirely free from these emissions.

The lowest actual measurement of particulate matter occurred in the (60-69) region and that was 2.2 µg/m³. The lowest number of nitrous oxide occurred in the (70-80) area and that was 0.1ppg a very small amount, but not zero.

London's highest amounts of these emissions are in a (40-49) area and the lowest are in the (80-90) darker green category. In London, there are eight areas with these lowest emission amounts in patches around the city. In terms of the EQ study they are the "healthiest" areas of the city. Seven are located in protected natural areas (like ESAs): Meadowlily Woods, Pond Mills, Kilaly Meadows, Medway Valley, Springbank Park and Warbler Woods. The eighth is in part of the Greenhills Golf Club property in Lambeth.⁴ In addition to being healthy they are the best in mitigating global warming because in these areas the two emissions are reduced to the lowest levels.

Viewed from above, the areas are entirely covered by vegetation and that vegetation has stomata which processes emissions, and stomata, that most growing plants have, are uniquely responsible

³<https://www.theguardian.com/environment/2013/jan/15/black-carbon-twice-global-warming#:~:text=Soot%20warms%20the%20atmosphere%20by,surface%20of%20snow%20and%20ice.>

⁴<https://www.google.com/maps/search/Transit+stations/@42.9932647,81.2037,654m/data=!3m1!1e3?entry=ttu>

for this processing and reduction of emissions. One mature tree which can have millions of stomata can remove 50 lb. of GHG a year. Growing grass removes approximately 400 lb. of emissions per acre, annually. As remarkable a job as vegetation does in dealing with human produced emissions, there is currently not enough of it to remove more than 30% of emissions, globally.

Moving away from these natural areas with lowest emissions and looking at other areas, the amount of vegetation covering the land decreases, the proportion of buildings and infrastructure covering land increases and the amount of emissions measured in the areas increases. The EQ index map then is showing area by area, colour by colour, the extent to which vegetation is processing emissions and it is London's good fortune to have a map that shows a pattern this clearly. In addition to showing how successfully vegetation is reducing emissions, the map can be used to help show how to protect and improve the vegetation that London has.

Zoning Protected Vegetation

Fundamentally vegetation needs to be considered by cities, where most vehicle emissions are produced, as a resource that needs protection and where possible, improved so that it can better mitigate the effect of emissions.

A way to protect vegetation so that it can perform this vital important function would be to be zone it so that it is protected from harm or removal. The land that the vegetation grows on would need to be zoned, but it's the vegetation not the land that gets the protection.

In the case of these natural areas, clearly deserving candidates for protection, it would seem just a matter of deciding what their borders are, something that may be marked on a map already, marking it on a Vegetation Zone Map and labelling it "Protected Vegetation". All that's needed is for the appropriate municipal body (London City Council) to accept the concept "Protected Vegetation" and draw the lines accordingly.

Other Areas

However, more fully recognizing the importance of this emission processing resource, vegetation, should include identifying many other areas of vegetation that are also performing that function, that would also not be difficult to identify and label, beyond the edges of the 'natural' areas.

Thinking of fairly large areas of vegetation that deserve inclusion, the list should include all parks, sports fields, cemeteries, golf courses, etc. Some care would be needed to avoid including buildings, parking lots, paved roadways, etc as protected areas. But this vegetation, must be. as a group, processing a great deal of emissions across the city and should be protected.

One specific area of vegetation that should be entitled to protection is that included in Labatt Memorial Baseball Park. This area is also protected as a designated historical site. The difference will be that buildings and paved areas will not be considered as protected vegetation, while under the historical designation they are. All only serving to emphasize that there are other good reasons for protecting vegetation, other than its importance in reducing emissions that contribute to global warming.

A historical/cultural designation was used to protect a golf course from development in a case before the Ontario Municipal Board. Significantly this was a situation where the owner planned to build high density apartment buildings over the vegetation.⁵ The City of Oakville opposed the planned development of the Glen Abbey golf course by the owner ClubLink, and used that historical/cultural designation as the argument to prevent the proposed development. The hearing for the final determination by the tribunal was supposed to begin in Aug. of 2021. ClubLink withdrew the appeal before that happened. In short, in a case where the tribunal would have to choose between competing visions for the use of the property, no decision was ultimately required.

Alternately if London was in a position of having to justify the prevention of development on the grounds of it being 'Protected Vegetation', a city with a powerful, comprehensive commitment to the mitigation of global warming could be an effective image to convey if the city ever needed to defend an area of vegetation.

Zoning: "Planning for Improvement"

There should not be extensive cost to the city in any of these changes, essentially it's a matter of definitions, labelling and some mapping, possibly with the preparation of an inventory, at least insofar as it involves, existing, relatively easy to identify areas of vegetation.

Attempting to plan for the protection and improvement of vegetation for the rest of the city, would be more involved. It would require creating an organizational team who could function as a liaison with groups which will, actually, be responsible for planning protection and improvements. The committee could also be tasked with preparing organizational maps used to keep track of the work completed by the groups. The costs will depend largely upon whether this organizational team is paid or not. Potentially if an advisory committee or some other committee were willing to take this on, the costs might be quite low.

The first task of the organizational team would be to decide whether or not there are any areas of the city that do not require a plan focused on improvement. At one end of the continuum are neighbourhoods with substantial amounts of vegetation, to the point where there would actually be hardly enough space to include more and at the other areas with much less. Many of the vegetation owners in the former are already quite involved in protecting their trees, and lawns, and gardens. The planning for these areas could be more about protect than improve. In fact these neighbourhoods might deserve congratulations and appreciation for substantially contributing to environmental health, and to the health of our planet.

Ontario has only received a taste of the brew that is coming like cycles of drought, flood, fire, blight, invasive insects and species. A plan for protecting their investments in vegetation could relate to the protection from the potential effects of climate change itself. The science is indicating that to this point, London,

⁵<https://www.oakville.ca/town-hall/news-notices/2021-news-releases-archive/historic-glen-abbey-property-saved-from-redevelopment/>

Research and intervention needs to focus on dealing with them as the future unfolds. One scenario suggests that our climatic area in twenty years will resemble that of Washington D.C. today. This could mean that different species should be planted now to survive in that particular environment. Growing cycles could become longer. Which might actually make it easier to grow more vegetation as the growing year extends. But this whole uncertain future only emphasizes the need on the part of the city for ongoing careful planning, cataloging and managing the vegetation as is, and providing communication to vegetation owners.

In the protected areas discussed earlier, that zoning label carries the implication that the area is to be protected from adding infrastructure that would displace vegetation. While that's an issue everywhere and certainly it would be a normal concern of owners in these denser vegetation neighbourhoods, the zoning label should have a different connotation. If the vegetation in these neighbourhoods was referred to as "Supported", it could convey the message that there was a tacit approval for the amount of vegetation here and the way it is being managed by its owners and that the city (double meaning) viewed itself as a supporting, sharing partner in the protection of the vegetation.

And at some point in drawing distinctions between one area and its plan from another may call for an actual measurement of the density of the vegetation so as to compare one area with another. For example in selecting these "supported" areas it may be necessary to define the area as one with vegetation density x. Technical resources are now available free to the public to assist with this kind of project. An example of a project that utilizes these resources is "Inequalities of Urban Greenness" by Kyeezu Kim.⁶ It is a good starting place for anyone looking to learn about measuring vegetation in urban area. Particularly useful here are the tools the study utilized in the NASA earthdata package.⁷ Google Street View referred to earlier is also an excellent resource for identifying vegetation differences in land covering. It's useful in actually locating the areas being defined.

The organization of the teams for the planning could be by emission areas. Using the EQ index map as a guide it would be a matter of identifying an area on the map of basically one colour to guide the grouping. It may need some explanation to get across the backstory of all this. i.e. everyone actually lives in the area where the levels of the two emissions are such and such and the general idea is to try and introduce more vegetation in the area which should reduce the emission level and help mitigate global warming, but overall it's important to get across the idea that emissions-wise this group living in this area are in the same boat.

The invitation to be part of the group charged with developing the plan should be extended to anyone who lives or owns property in the designated area. Their task would be to meet as a group and develop ideas for things that could be done to add vegetation to the area. The representative from the city could act as a moderator, or serve as resource, if they are familiar with city plans and

⁶<https://www.science.org/doi/10.1126/sciadv.adf8140>

⁷<https://search.earthdata.nasa.gov/search>

policies that members might want to know about. But their main responsibility, when the group has decided that the plan is done, would be to inform council, or whoever is responsible for recording zoning that the area can be labelled on the map "Planned for Improvement". (Another option would be to zone the area "Planning for Improvement" as soon as the group meets and starts planning, and so the liaison rep could be responsible for delivering that message and change it "Planned" when complete.)

The group should be free to decide how to execute their plan. If there are costs involved in the plan they should be free to seek funding from different levels of government. They can ask the city of London for money, establish a GoFundMe, solicit donations, use fundraisers, whatever they like. One responsibility of the liaison rep could be to help with this.

While the time frames should be in their hands, two fundamental facts should be conveyed to stimulate some sense of urgency in what they are trying to accomplish. When growing vegetation is established, it begins to reduce emissions as soon as it has green leaves. For the foreseeable future there is a desperate, time sensitive need to reduce those emissions we are producing.

The 'invitation' map reflects a level of emissions per area, but also every area of the city should be accounted for on the map. In contrast to areas of the city that have enough vegetation so that they are considered effective in processing emissions, there are areas with very little vegetation, for example, the central downtown area of the city. This lack of vegetation may result in a lack of interest in the opportunity to participate in a project to protect and improve that small amount. Or, possibly not, there could turn out to be downtown dwellers with many wonderful ideas about how to vegetate the core area. But if there is no interest for any area in working on this project that area can simply be left blank. If that situation changes in the future and a group decides to take this on, well and good. The point is there is no time sensitivity as to the potentially filling of the map. Interest and recruitment may take longer to evolve for some areas than others.

Costs and Funding for Protecting Vegetation

The legal contest that the city of Oakville and ClubLink are engaged in has not been without substantial costs on both sides and the potential legal costs involved in protecting vegetation deserves consideration. However, the decision to take a leadership role here, might have potential advantages in terms of acquiring funding to support projects that protect vegetation. There may be granting opportunities for the creation of parks. Provincial funding may be available from federal transfers for projects that incorporate climate adaptation efforts, from a Natural Infrastructure Fund.⁸ In terms of accessing needed financial resources, this may be just the right time for the city to adopt a powerful stance on vegetation protection.

⁸https://publications.gc.ca/collections/collection_2022/eccc/En4-469-2022-eng.pdf

Part 2 Diesel Emissions in London

At the C40 meeting of urban leaders in Mexico, four mayors (Paris, Mexico City, Madrid and Athens) declared that they would ban all diesel vehicles by 2025 and "commit to doing everything in their power to incentivise the use of electric, hydrogen and hybrid vehicles". Taking a different approach, London, England has had considerable success in reducing diesel emissions by instituting charges for diesel vehicles entering the city under a ULEG program (Ultra-Low Emission Zone) charging daily amounts of 12.5 £ for cars and 100 £ for trucks.⁹

To this point, the discussion of the need for zoning has focused on the importance of vegetation in removing emissions caused by the burning of fossil fuel. What follows is an examination of one source of emissions, namely diesel fuel burning. The objective here is to show how zoning also could be used to control it and limit the production and effect of these emissions. The starting point will be an examination of the area areas at the lowest end of the air quality and emission reduction scale.

The lowest scoring area (40-50) in London, on the EQ map, is a sandy coloured area forming a large irregular patch concentrated in an area between a line running east to west slightly north of Central Ave. that marks the northern extent of the C.P. Railyard and in the south to Hamilton Rd. and east to west between Highbury Ave. and Adelaide St. The other large portion of rail yard is owned by CN Rail. A small chunk of the area left of centre is beige (50-60) and yellow (60-70), a small older residential area. Slightly east of this the rail areas are connected by a strip of the (40-50) colour.

The rail areas are separate sections 21 and 22 rails wide. Around this area is an eclectic mix of six auto repair shops, three car dealerships, Fed Ex, a custom cabinetry, a salvage yard, a window and door supplier, a pet groomer, a designer shop, a plumbing supplier and one truck repair shop. Overall the area is an industrial/commercial residential mix. The Fed Ex business is probably the largest source of diesel truck traffic close by. Otherwise this area would have tow truck, light truck and van and car traffic. Overall, the area is not densely residential and has some vegetation. There is actually a small greenspace, Silverwoods Park, immediately beside the CN railyard.

The burning of gasoline does not usually produce amounts of particulate matter while diesel burning directly produces large amounts, two in particular, black carbon (soot) and fine particles under 2.5 microns. And while burning gasoline and diesel both produce nitrous oxides, diesel burning produces it in much larger amounts, eight to eleven times as much. It is estimated that diesel burning is responsible for 85% of all nitrous oxides from moving vehicles. In perspective, in this area, much of the particular fuel that produces a substantial amount of both these emissions is being burned by diesel powered locomotives in two railyards effectively sandwiching the area, virtually exclusively in this pattern in this area of the city.

In terms of development, if the railyards expand and the amount of diesel train traffic increased,

⁹<https://www.c40.org/news/daring-cities-make-bold-air-quality-commitment-to-remove-all-diesel-vehicles-by-2025/>

a kind of industrial growth, the emissions here would increase and the emissions amount in the area would increase. This is actually a mixed residential area and while residential growth itself would also cause some increase in emissions the real concern would be for literally putting more people in an area that is already, the lowest air quality residential area.

Comparing this area to Toronto's "unhealthiest" place shows another pattern of land use that results in diesel emission increase. (Toronto and Oshawa Map A) A large nonresidential area in the pink range (20-30) in the lowest air quality identified on the EQ scale, is in Etobicoke between Kipling and Royal York Road west to east and the Gardiner Expressway and Lakeshore Blvd, north to south. The principal owner of the area is CN Railway. It contains the GO and VIA maintenance yards and is dominated by a pattern of rail tracks, 56 tracks wide.

There are a number of buildings housing businesses around the rail centre: Draglam Salt, Toronto Redimix, Chiovitti Banana, Goodyear, Canpar, DCI Paint, Fix Auto, Lantic, Pioneer, 2D House. The actual businesses here are storage, delivery and distribution. Only one, Indie Brewhouse, has a manufacturing process and makes a product, beer. The buildings are not densely placed in the area. There is a lot of pavement and very little vegetation. Much of the road traffic here is large moving, diesel powered trucks.

In both of these areas, again, a substantial amount of the fuel that produces both of these emissions is being burned. The explanation for why the amount of emissions is higher again in the Etobicoke area than in the London could be that even more is being produced by traffic from heavy diesel trucks, more diesel truck traffic than would likely be happening near the London yard.

The Problem Finding Toronto's ESAs.

While (80-90) air quality areas are relatively easy to find on London's map, locating them in Toronto is more challenging. In all of Toronto, there is exactly one small area of this (80-90) quality. It is also in an ESA forming a narrow strip of land ½ km wide and 2 km long in Guildwood Park and Gardens, in Scarborough, south of the Guildwood Parkway on the shore of Lake Ontario. While the city has 85 other environmentally significant areas across the city "Most of these natural areas are found in ravines, river valleys and along the waterfront, where they form the core of the city's natural parkland system".¹⁰ Unlike London, where there were eight 'darker green' areas only this one small area tested for emissions in the (80-90) category in Toronto.

Many of the other ESA areas in Toronto are in light green (70-80) areas. In London, as much as half of the city is this lighter green (70-80) but it is generally 'inhabited', with houses, buildings and vehicles inevitably producing a substantial amount of emissions. Much of this in London is in older residential areas of the city where there is vegetation characteristic of older urban design with areas of tree canopy, larger green lots surrounding houses, park areas, wider setback areas accommodating street trees. Vegetation is certainly here, just not as dense as in ESA areas. What

¹⁰<https://www.toronto.ca/explore-enjoy/parks-gardens-beaches/ravines-natural-parklands/environmentally-significant-areas-2/>

is denser are buildings and traffic. And here, on average each gas burning car produces 4.6 metric tonnes of GHG and each fossil fuel heated house 2.75 T of GHG.

The difference in score between the (80-90) area and these ESA areas in Toronto indicates that there are more emissions being counted that vegetation here can't remove, the overspill from the sources that are producing those emissions here that are basically causing the drop in the score from the (80-90) range in London to the (70-80) range in Toronto.

It raises the question about where basically this amount of emissions in those 85 ESA areas in Toronto that are scoring lower is coming from. There aren't buildings and traffic within the areas, so it must be migrating from somewhere else.

This issue of this movement of emissions was examined in a "Near-Road Air Pollution Pilot Study"¹¹ conducted by the Southern Ontario Centre for Atmospheric Aerosol Research at the University of Toronto, collaborating with Environment and Climate Change Canada and it provided much valuable information on the issue of the issue of diesel truck emissions and overall on the disproportional amount of emissions contributed by diesel trucks on roads travelled. The study monitored six stations beside major roads in Vancouver and Toronto between 2015 and 2017 and made these observations:

"Emissions from trucks represent the major source of key pollutants such as nitrogen oxides and black carbon. Data for these pollutants indicate that excessive exposure to diesel exhaust can occur near roads with a significant proportion of truck traffic....concentrations are higher on cold winter days suggesting that the emission control systems for diesel vehicles may not perform well at low temperatures....Emission factors for over 100,000 individual vehicle plumes also showed that a small portion of the trucks and cars were responsible for the majority of the emissions" The report concluded that "...policies and programs implemented to remove this small fraction of highest-emitting vehicles from populated areas could yield large benefits."

In Toronto, nearby roads are essentially delivering diesel emissions to areas near these ESAs where they are dispersed essentially driving up the measurement count of the emissions. The actual location of that one area that is testing lower in emissions than 85 other ESAs, offers some clues as to why it escapes the emission intrusion. The entire east side of the Guildwood area is the shore of Lake Ontario, which would rule out the possibility of a nearby road on that side for emission delivery and possibly prevailing breezes from the lake from the east might keep some at bay on the west side, or possibly enough vegetation on the west side acts as a barrier.

Given that London's eight lowest emissions areas are scattered around the city, it seems reasonable to conclude that London does not at least to this point have the amount of road diesel traffic that's having the effect that it has on ESA areas in Toronto. Putting this in the context of potential growth, the concern would be that if diesel traffic expands as the city grows, the amount of diesel emissions

¹¹<https://www.socaaar.utoronto.ca/wp-content/uploads/2019/10/SOCAAR-Near-Road-Air-Pollution-Pilot-Study-Summary-Report-Fall-2019-web-Final.pdf>

could increase, and disproportionately impact a wider area.

In East London, east of the rail area, there's a large area, a level lower (50-60) than in (60-70) lower because of a disproportional effect of diesel emissions. While Toronto's Etobicoke CN rail area is a non residential area, London has more areas with mixes of industry, commerce and housing. The mixed residential-industrial area, become more industrial as you travel East. The housing is not particularly dense and the vegetation denser than in sprawl areas. It could well be a level lower because of a disproportional effect of diesel emissions. It makes sense in this residential areas to protect and strengthen vegetation but in both London's rail area and this extended area to the east, strategies should focus on reducing diesel emissions, in the (40-50) area from trains and in the (50-60) areas from trains and trucks.

The Provincial Approach to Diesel Emissions

Our provincial government also focused on the diesel truck emission issue in 2021. Then, our premier introduced a plan to eliminate the emission testing of cars, arguing that given how few vehicles were actually failing, it was largely unnecessary. Instead, there would be a stepped-up program focusing on diesel powered trucks which the premier argued were a more serious source of emissions. Diesel trucks are now tested for particulate matter, using an opacity test, which tests for particles that are visible, but doesn't identify smaller particles. The testing requirements also change with the age of the vehicle. Older vehicles (pre-1990) are allowed twice the emissions of newer vehicles. Trucks are also tested for nitrous dioxide but only in the sense that the nitrogen oxide storage catalytic converter (assuming it is present) is checked for cracks, leaks and perforations.

Unlike in London, England, the program has yielded little by way of emission reduction. Truck owners complain about the lack of qualified technicians to do the testing and the cost of towing vehicles to testing centers. Because the emission control systems negatively affect fuel efficiency, the practices of removing the systems and reprogramming engines are commonplace.¹² In the rail industry, there is emission testing for particulate matter and carbon monoxide but no testing for nitrous dioxide.¹³

Trains vs. Trucks

In London, Ont. local government needs to focus on controlling in the short term and eliminating in the longer, the sources of diesel emissions. For diesel train emissions, this would require intervention with the railway industry and for trucks, some regulation of diesel truck traffic. One challenge is with an ongoing situation. The other with a problem that could easily get worse in the future.

¹²<https://www.trucknews.com/transportation/uoft-study-trucks-pollute-disproportionately/1003094913/>

¹³<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-121/page-1.html#h-839469>future. And in the region of London most affected by rail exhaust emissions, there are two rail companies to deal with.

Assuming that the rail industry plans to continue operating in London, both companies need to change to technology that doesn't endanger health and further contribute to global warming. Both companies have chosen technology to replace diesel locomotives, actually, different technologies. CN is changing to electric power sources, CP, to hydrogen fuel cells. Frankly, all cities that have a problem with diesel emissions from the rail industry should be pressuring the industry to implement those technological changes quickly.

London city council should consider sending the companies a copy of the EQ map and circling the irregular sandy patch, as a graphic representation of an emissions problem that is fundamentally the responsibility of the railways. Taking a more positive tack, if there is a way to become part of a leading edge in technological changes. (Pilot projects?), London should be looking into it. Unless some form of dialogue has been already initiated with the railroads, starting that process ASAP seems a good idea.

What London is now using to reduce fossil fuel emissions is a substantial network of vegetation but diesel traffic could travel to every street corner and essentially overwhelm even relatively dense vegetation, The strategy to reduce diesel emissions in London should be to reduce sources already creating emissions in an area, and aggressively prevent their expansion. The strategies, city wide, should include preventing expansion of diesel traffic to areas which so far, are showing effects of diesel emissions "only" in the range. NO (7.7 - 4.9) ppb and PM (7.4 – 6.6) $\mu\text{g}/\text{m}^3$.

At present, diesel truck emissions are dispersed around the city, but not enough to overwhelm existing vegetation. What needs to happen is the prevention of diesel truck traffic from increasing to intrusive, overwhelming levels, levels already reached in larger cities. Preventing it means looking at current industry and examining current use of transportation and patterns in the routes followed, and what plans for growth in transportation might amount to.

Every new business or industry considering starting up in London needs to be considered through this lens. There could be a program to encourage companies currently using diesel trucks to switch to trucks with zero emission fuels. Or, it could be a criteria used in permitting an industrial business for operation in London. More than looking at what new industry or commerce is doing in the building, it involves looking at what is happening at the loading dock at the back door.

The first steps in a process to hopefully end with elimination of all diesel traffic, should be to zone roads and areas of the city where diesel vehicles could be allowed to travel for some fixed term, with some end dates in place. The other option that could be used in addition to this approach would be to charge user fees like London, England in a ULEZ zone.

In mapping roads where diesel vehicles are allowed to travel, it would seem that all that would be needed would be to show, on a map, the existing roads with a certain legend colour, or symbolic design that serves to indicate "Diesel Traffic Allowed". For the lowest scoring rail area itself, the lines around the edges of that area on EQ index map are generally straight and maybe be on roads or partially on roads and if they are used to indicate the edges of the "Diesel Traffic Zone - Trains" locating and copying them would be a way to 'create' the zone, or possibly part of it.

Zoning Map Features

"Diesel Traffic Zone - Trains"

This designation would show areas in the city where the operation of diesel locomotives is allowed and where emissions are to be confined. It could indicate by timeline the date upon which the traffic and the operation of diesel burning vehicles in the area would no longer be legal.

"Diesel Traffic Zone -Trucks"

This zoning would reflect corridors within the city where diesel vehicles currently travel and will continued to be allowed to do so, until some date in the future when it is no longer legal. The understanding would be that by exclusion diesel traffic would not be legal in other areas. This could be supported by signage on the roads clearly indicating the limitations of the allowance.

"Diesel Traffic Restriction Zone: Cars and Trucks" (Option)

If a plan was adopted similar to the one in London, England this zone within some specified area would be where the payment of some kind of charge for access would be levied.

Angus Johnson

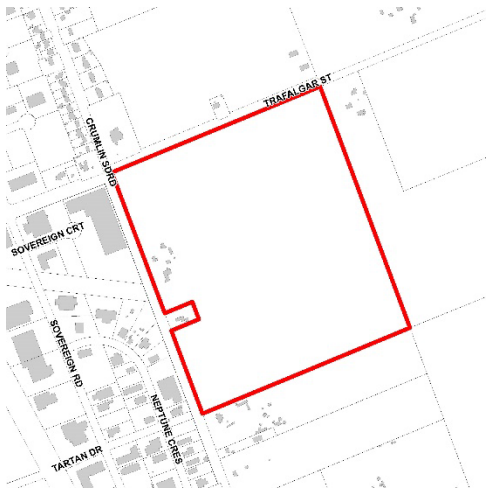
Greenspace Alliance



NOTICE OF PLANNING APPLICATION & NOTICE OF PUBLIC MEETING

Official Plan and Zoning By-law Amendments

764, 772, 774 Crumlin Sideroad



File: OZ-9642

Applicant: New London Group (c/o Zelinka Priamo Ltd.)

What is Proposed?

Zoning amendment and Official Plan amendment to allow:

- The creation of thirteen (13) new residential single-family lots.
- A special policy area to permit lot areas less than 1 ha (0.4 ha) in the Rural Neighbourhoods Place Type.

LEARN MORE & PROVIDE INPUT

You are invited to provide comments and/or attend a public meeting of the Planning and Environment Committee to be held:

Meeting Date and Time: Tuesday, October 3, 2023, no earlier than 4:00 p.m.

Please monitor the City's website closer to the meeting date to find a more accurate meeting start time: <https://london.ca/government/council-civic-administration/council-committee-meetings>

Meeting Location: The Planning and Environment Committee Meetings are hosted in City Hall, Council Chambers; virtual participation is also available, please see City of London website for details.

Please provide any comments by **August 22, 2023**

For more information contact:

Brent House
bhouse@gmail.com
519-661-CITY (2489) ext. 4078
Development Services, City of London
300 Dufferin Avenue, 6th Floor,
London ON PO Box 5035 N6A 4L9
File: OZ-9642

london.ca/planapps

To speak to your Ward Councillor:

Shawn Lewis
slewis@london.ca
519-661-CITY (2489) ext. 4002

If you are a landlord, please post a copy of this notice where your tenants can see it. We want to make sure they have a chance to take part.

Date of Notice: August 1, 2023

Application Details

Requested Amendment to The London Plan (New Official Plan)

To add a specific policy to allow for a reduced lot area for all lots under 1 hectare within the Rural Neighbourhoods Place Type for the subject lands.

Requested Zoning By-law Amendment

Possible change to Zoning By-law Z.-1 FROM a Residential R1 (R1-17) Zone, an Environmental Review (ER) Zone, an Agricultural (AG1) Zone, and a holding Open Space (h-2, OS4) Zone TO a Special Provision Residential R1 (R1-14(_)) Zone, an Environmental Review (ER) Zone, an Agricultural (AG1) Zone, and a holding Open Space (h-2, OS4) Zone. Changes to the currently permitted land uses and development regulations are summarized below.

The complete Zoning By-law is available at www.london.ca/planapps.

Current Zoning

Zone: Residential R1 (R1-17)/Environmental Review (ER)/Agricultural (AG1)/ holding Open Space (h-2, OS4) Zone

Permitted Uses: Residential R1-17 Zone – single-detached dwellings. Environmental Review (ER) Zone – Conservation lands; Conservation works; Passive recreational uses; Managed woodlots; Agricultural uses. Agricultural (AG1) Zone – agricultural uses; livestock facilities provided that such facilities are located at least 300 metres from the City’s Urban Growth boundary; or in accordance with the MDS regulations, whichever is greater; Farm Dwelling; Forestry uses; Kennels; Conservation lands; Wayside pits; Nursery; Passive recreation use; Farm market; Small Wind Energy Conversion System; Greenhouse farm. Open Space (OS4) Zone – Conservation lands; Conservation works; Passive recreation uses which include hiking trails and multi-use pathways; Managed woodlots.

Requested Zoning

Zone: Special Provision R1(R1-14(_)/Environmental Review (ER)/Agricultural(AG1)/ holding Open Space (h-2, OS4) Zone

Permitted Uses: Residential R1-14 Zone – single-detached dwellings. Environmental Review (ER) Zone – Conservation lands; Conservation works; Passive recreational uses; Managed woodlots; Agricultural uses. Agricultural (AG1) Zone – agricultural uses; livestock facilities provided that such facilities are located at least 300 metres from the City’s Urban Growth boundary; or in accordance with the MDS regulations, whichever is greater; Farm Dwelling; Forestry uses; Kennels; Conservation lands; Wayside pits; Nursery; Passive recreation use; Farm market; Small Wind Energy Conversion System; Greenhouse farm. Open Space (OS4) Zone – Conservation lands; Conservation works; Passive recreation uses which include hiking trails and multi-use pathways; Managed woodlots.

The City may also consider the use of holding provisions, and additional special provisions to facilitate the proposed development.

Planning Policies

Any change to the Zoning By-law must conform to the policies of the Official Plan, London’s long-range planning document. These lands are currently designated as Rural Neighbourhoods Place Type, as well as Green Space Place Type, Environmental Review Place Type and Farmland Place Type.

The subject lands are in the Rural Neighbourhoods, Environmental Review, Green Space & Agricultural Place Types in The London Plan, permitting single detached dwellings, including infill development for the Rural Neighbourhoods Place Type. The lands also permit agricultural uses, within the Farmland Place Type. The lands also permit varying permitted uses within the Green Space Place Type, depending on the natural heritage features and areas contained on the subject lands, the hazards that are present, and the presence of natural resources which are to be protected. Permitted uses in the Environmental Review Place Type will include agriculture, woodlot management, horticulture, conservation, and recreational uses

How Can You Participate in the Planning Process?

You have received this Notice because someone has applied to change the Official Plan designation and the zoning of land located within 120 metres of a property you own, or your landlord has posted the notice of application in your building. The City reviews and makes

decisions on such planning applications in accordance with the requirements of the Planning Act. The ways you can participate in the City's planning review and decision-making process are summarized below.

See More Information

You can review additional information and material about this application by:

- Contacting the City's Planner listed on the first page of this Notice; or
- Viewing the application-specific page at london.ca/planapps
- Opportunities to view any file materials in-person by appointment can be arranged through the file Planner.

Reply to this Notice of Application

We are inviting your comments on the requested changes at this time so that we can consider them as we review the application and prepare a report that will include Planning & Development staff's recommendation to the City's Planning and Environment Committee. Planning considerations usually include such matters as land use, development intensity, and form of development.

Attend This Public Participation Meeting

The Planning and Environment Committee will consider the requested Official Plan and zoning changes at this meeting, which is required by the Planning Act. You will be invited to provide your comments at this public participation meeting. A neighbourhood or community association may exist in your area. If it reflects your views on this application, you may wish to select a representative of the association to speak on your behalf at the public participation meeting. Neighbourhood Associations are listed on the Neighbourgood website. The Planning and Environment Committee will make a recommendation to Council, which will make its decision at a future Council meeting.

What Are Your Legal Rights?

Notification of Council Decision

If you wish to be notified of the decision of the City of London on the proposed official plan amendment and/or zoning by-law amendment, you must make a written request to the City Clerk, 300 Dufferin Ave., P.O. Box 5035, London, ON, N6A 4L9, or at docservices@london.ca. You will also be notified if you speak to the Planning and Environment Committee at the public meeting about this application and leave your name and address with the Clerk of the Committee.

Right to Appeal to the Ontario Land Tribunal

If a person or public body would otherwise have an ability to appeal the decision of the Council of the Corporation of the City of London to the Ontario Land Tribunal but the person or public body does not make oral submissions at a public meeting or make written submissions to the City of London before the proposed official plan amendment is adopted, the person or public body is not entitled to appeal the decision.

If a person or public body does not make oral submissions at a public meeting or make written submissions to the City of London before the proposed official plan amendment is adopted, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Land Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to add the person or public body as a party.

If a person or public body would otherwise have an ability to appeal the decision of the Council of the Corporation of the City of London to the Ontario Land Tribunal but the person or public body does not make oral submissions at a public meeting or make written submissions to the City of London before the by-law is passed, the person or public body is not entitled to appeal the decision.

If a person or public body does not make oral submissions at a public meeting or make written submissions to the City of London before the by-law is passed, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Land Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

For more information go to <https://olt.gov.on.ca/appeals-process/forms/>.

Notice of Collection of Personal Information

Personal information collected and recorded at the Public Participation Meeting, or through written submissions on this subject, is collected under the authority of the Municipal Act, 2001, as amended, and the Planning Act, 1990 R.S.O. 1990, c.P.13 and will be used by Members of Council and City of London staff in their consideration of this matter. The written submissions,

including names and contact information and the associated reports arising from the public participation process, will be made available to the public, including publishing on the City's website. Video recordings of the Public Participation Meeting may also be posted to the City of London's website. Questions about this collection should be referred to Evelina Skalski, Manager, Records and Information Services 519-661-CITY(2489) ext. 5590.

Accessibility

The City of London is committed to providing accessible programs and services for supportive and accessible meetings. We can provide you with American Sign Language (ASL) interpretation, live captioning, magnifiers and/or hearing assistive (t coil) technology. Please contact us at plandev@london.ca by September 25, 2023 to request any of these services.

Site Concept

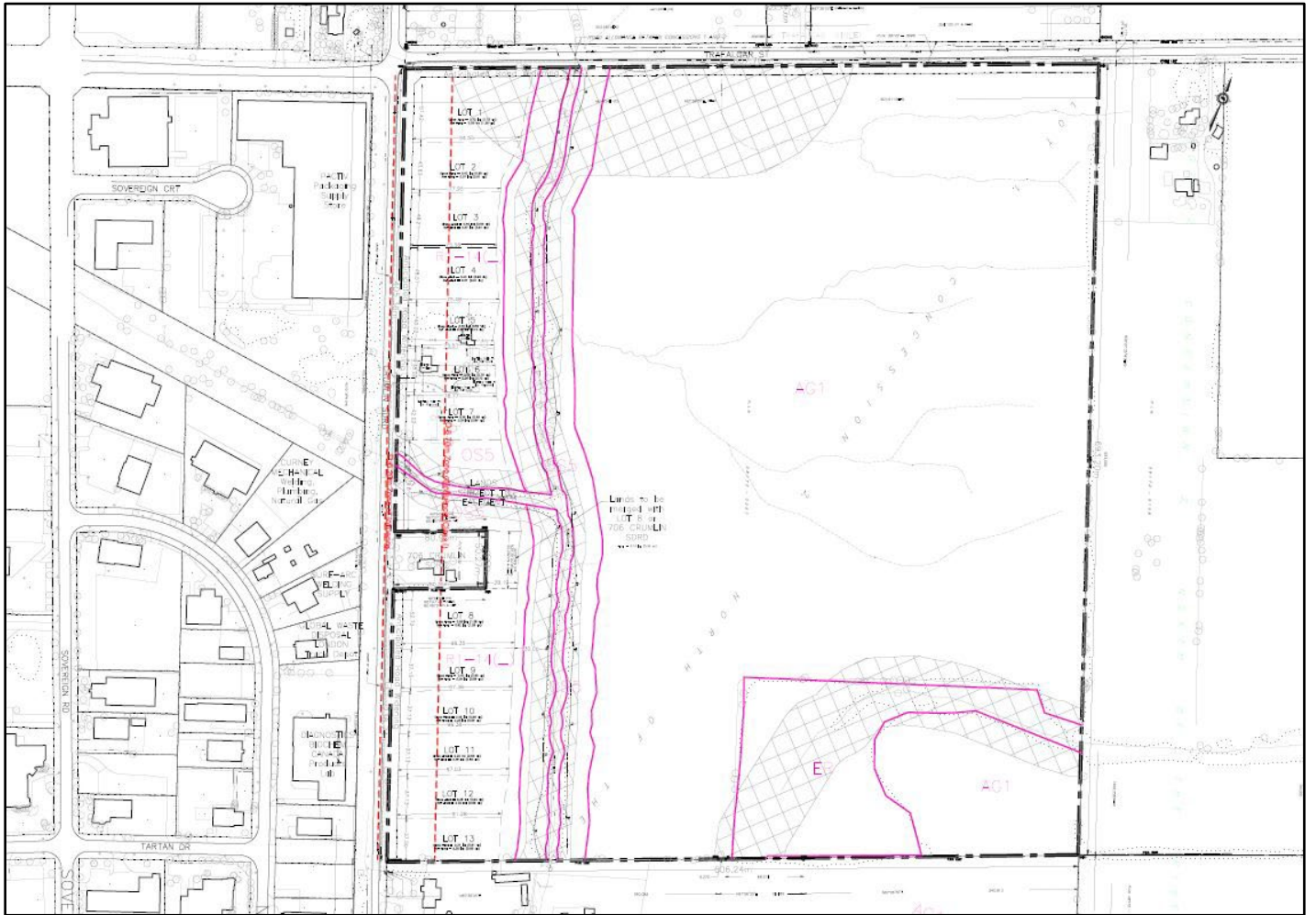


Figure 1. Severance Plan for 764,772,774 Crumlin Side Road

What's the problem?

- Birds are dying - estimates suggest that about 25 million birds die each year from window collisions in Canada.
- There are many species, including some species at risk, that collide with buildings in Canada.
- In 2019, scientists reported a 29% decrease in birds since 1970.
- Increased use of glass in modern architecture has increased the incidences of bird collisions.
- Excessive use of artificial light - known as light pollution - may cause birds to wander off course and increase the likelihood of collisions.

What is the solution?

New and existing buildings should be made less harmful to migratory birds, with a focus on two key areas:

- making glass less dangerous
- reducing light pollution

These strategies can be incorporated into the design of new buildings and into retrofit projects of existing buildings.

The City of London has implemented lighting requirements for new site developments in an effort to preserve local bird species and migrating birds.



For questions on lighting criteria for new developments:

Planning and Development
519-930-3500
plandev@london.ca

Preventing window collisions

Saving our birds

Visit **flap.org** for tips to protect birds at your home and office.

london.ca



Why do birds crash into windows?

Birds do not see window glass as a solid object and do not understand reflections.

Birds try to pass through glass to reach where they see open space or habitat.

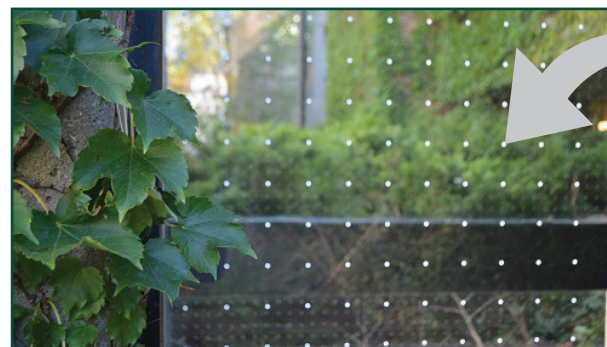
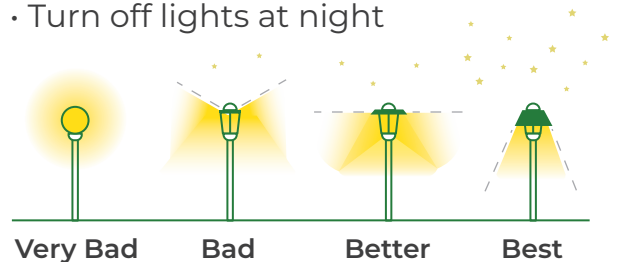
Light pollution, especially from poorly positioned exterior lighting, impacts migration patterns.

Did you know?

Birds use the moon and stars to navigate. During peak bird migration periods—from March to May and from August to October—turn out all unnecessary lights and draw your blinds from 10 p.m. to 6 a.m.

Ways to reduce light pollution

- Direct lighting towards the area requiring illumination
- Provide full cut-off (no light at or above 90 degrees from source) and have no up lighting
- Turn off lights at night



Ways to make glass less dangerous to birds

Modify glass to appear as a visible barrier rather than a potential fly-through area:

- Use visual markers by having an image or pattern screened, printed or applied to the glass surface. Spaced at a maximum of 5 cm apart*, visual markers have proven to be the most effective way of deterring bird collisions with glass.

The denser the pattern, the more effective it becomes. Must also be high contrast.

- Opaque, etched, stained, frosted glass, as well as glass block are excellent bird-friendly options.

Incorporate decorative facades to reduce the amount of visible glass.

- Screens, grilles, shutters and exterior shades are commonly used elements that can make glass safer for birds.

* Source: CSA A460

From: Brendon Samuels
Sent: Tuesday, September 26, 2023 2:08 PM
To: Lysynski, Heather <hlysynsk@London.ca>
Subject: [EXTERNAL] Re: October ESACAC Agenda

Hello Heather,

I have one final item to add to the ESACAC agenda.

I would like to request a status update from staff about the fishing line receptacles that were supposed to be installed near the river. I have received several public inquiries about the status of this project.

<https://www.cbc.ca/news/canada/london/london-ont-conservationist-builds-fishing-line-receptacles-to-reduce-waste-1.6697136>

I produced and delivered 12 PVC pipe receptacles and labels to the Operations Centre at Elizabeth Street several months ago (received by Dianna Clarke, since retired) where they have remained in storage. Back in January, we identified candidate locations for installing the receptacles based on where surveys found a lot of litter, and we received tentative approval from upper management at the City (Scott Stafford, since moved on to a different role). It seems the project has stalled in the final implementation stage and I am not sure which staff are responsible for it. I believe the Animal Welfare Advisory Committee also recently discussed this at their September meeting (under "Clear Your Gear") but I'm not aware of the outcome.

Would it be possible for someone from Parks and Recreation to attend the ESACAC meeting so we can review next steps?

Thank you,

Brendon Samuels

12:00pm	1:00pm			
12:00pm		3:30pm	4:00pm	4:30pm
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13 Responses